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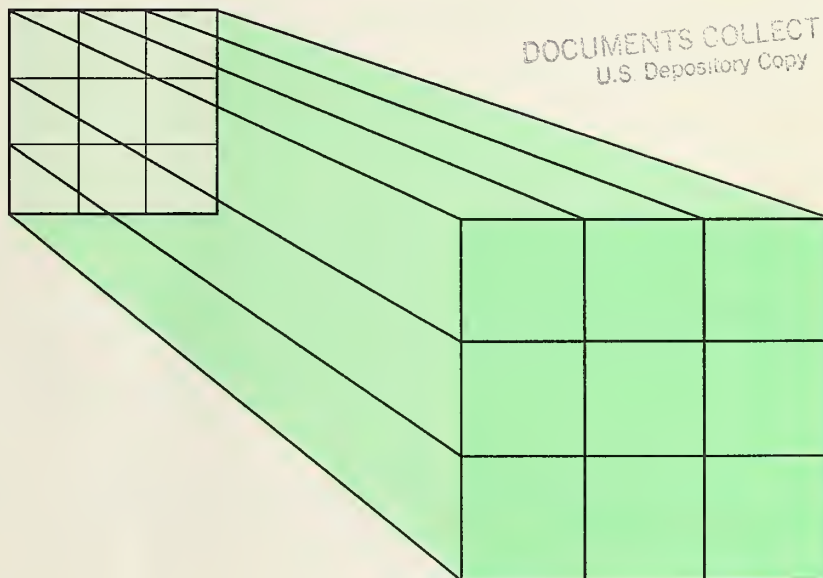
REGIONAL MULTIPLIERS:

A User Handbook for the Regional Input-Output Modeling System (RIMS II)

PENNSYLVANIA STATE
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REGIONAL MULTIPLIERS:

A User Handbook for the Regional Input-Output Modeling System (RIMS II)

Second Edition
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U.S. DEPARTMENT OF COMMERCE

Barbara Hackman Franklin, *Secretary*



ECONOMICS AND STATISTICS ADMINISTRATION

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Preface

This handbook of regional output, earnings, and employment multipliers was prepared by Richard M. Beemiller and Howard L. Friedenberg, under the general guidance of Hugh W. Knox, Associate Director for Regional Economics of the Bureau of Economic Analysis (BEA), and under the direction of John R. Kort, Chief of the Regional Economic Analysis Division (READ).

READ has a continuing research program to develop improved techniques for analyzing the regional economic impacts of projects and programs. In the early 1970's, READ developed a method known as the Regional Industrial Multiplier System (RIMS) for estimating regional input-output multipliers. The RIMS methodology was based on the work of Daniel H. Garnick and Ronald L. Drake. Further development, based on the work of Joseph V. Cartwright and Richard M. Beemiller,

resulted in an enhanced method known as the Regional Input-Output Modeling System (RIMS II).

In 1986, READ published a handbook for users of regional multipliers from RIMS II. The multipliers in this new edition of the handbook reflect recent methodological changes and data updates by Richard M. Beemiller. The methodological changes have improved the accuracy of multipliers for the agriculture and construction industries and the accuracy of employment multipliers for all industries. In addition, total multipliers now are available on a direct-effect basis as well as on a final-demand basis.

Karen A. Newman provided typing assistance, and Shirley M. Watson and M. Gretchen Gibson provided editorial assistance. Eric B. Manning, under the guidance of Leland L. Scott, Chief of the Publication Services Branch, coordinated preparation of the publication for printing.

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Introduction

Effective planning for public- and private-sector projects and programs at the State and local area levels requires systematic analysis of the economic impacts of the projects and programs on affected regions. Systematic analysis of economic impacts, in turn, must take into account interindustry relationships within regions because those relationships largely determine how regional economies respond to project and program changes. Thus, regional input-output (I-O) multipliers, which account for interindustry relationships within regions, are useful tools for regional economic impact analysis.

In the mid-1970's, the Bureau of Economic Analysis (BEA) completed development of a method for estimating regional I-O multipliers known as RIMS (Regional Industrial Multiplier System), which was based on the work of Garnick and Drake.¹ In the mid-1980's, BEA completed an enhancement of RIMS, known as RIMS II (Regional Input-Output Modeling System), and published a handbook for RIMS II users.² Now, BEA is making available a new edition of the handbook, in which the multipliers are based on more recent data and improved methodology.³

RIMS II is based on an accounting framework called an I-O table. An I-O table shows, for each industry, industrial distributions of inputs purchased and outputs sold. A typical I-O table in RIMS II derives mainly from two data sources: (1) BEA's national I-O table, which shows the input and output structure of more than 500 U.S. industries, and (2) BEA's four-digit Standard Industrial Classification (SIC) county wage-and-salary data, which can be used to adjust the national I-O table to show a region's industrial structure and trading patterns.⁴

Using RIMS II, multipliers can be estimated for any region composed of one or more counties and for any industry in the national I-O table. This handbook presents multipliers for States. The accessibility of the main data sources for

RIMS II keeps the cost of estimating regional multipliers relatively low. Empirical tests show that estimates based on the modeling system and estimates based on relatively expensive surveys are similar in magnitude. Moreover, RIMS II easily can incorporate project-specific data supplied by users; such data can improve the accuracy of the multiplier estimates.⁵

I-O multipliers from RIMS II can be used to estimate the impacts of project and program expenditures by industry on regional output (gross receipts or sales), earnings (the sum of wages and salaries, proprietors' income, and other labor income, less employer contributions to private pension and welfare funds), and employment (number of jobs).

Effective use of the multipliers for impact analysis requires proper interpretation of the I-O relationships. The second section of this handbook defines some key relationships. As discussed in the third section, users must provide information on the geographic and industrial patterns of the project or program expenditures under study or on the direct earnings and employment changes associated with the project or program.

RIMS II is widely used in both the public and private sectors. In the public sector, for example, the Department of Defense (DOD) uses RIMS II to estimate the regional impacts of changes in defense expenditures; the Florida Department of Transportation uses RIMS II to estimate the regional impacts of constructing and operating transportation facilities. Private-sector analysts, consultants, and economic development practitioners use RIMS II to estimate the regional impacts of a variety of projects, the most typical of which is a new construction project.

This handbook comprises three additional sections of text, three appendixes, and a statistical section. The second section of text discusses what the I-O multipliers mean, using nontechnical language and simplified accounting. The third section discusses the information that users of RIMS II must provide. The fourth section contains four hypothetical case studies that illustrate use of the multipliers. The studies focus on estimating the regional economic impacts of building a new electric utility facility, operating a manufacturing plant, shutting down a military base, and operating an airport. Appendix I contains suggestions for further reading. Appendix II contains a list of the detailed industries for which multipliers are available, and Appendix III contains a list of the industry aggregations for which multipliers are available. The statistical section at the end of this handbook presents a selection of tables of I-O multipliers that are available from RIMS II.

1. See Daniel H. Garnick, "Differential Regional Multiplier Models," *Journal of Regional Science* 10 (February 1970): 35-47; and Ronald L. Drake, "A Short-Cut to Estimates of Regional Input-Output Multipliers," *International Regional Science Review* 1 (Fall 1976): 1-17.

2. See U.S. Department of Commerce, Bureau of Economic Analysis, *Regional Input-Output Modeling System (RIMS II): Estimation, Evaluation, and Application of a Disaggregated Regional Impact Model* (Washington, DC: U.S. Government Printing Office, 1981). Also see U.S. Department of Commerce, Bureau of Economic Analysis, *Regional Multipliers: A User Handbook for the Regional Input-Output Modeling System (RIMS II)* (Washington, DC: U.S. Government Printing Office, 1986).

3. Methodological changes have improved the accuracy of multipliers for the agriculture and construction industries and the accuracy of employment multipliers for all industries.

4. See U.S. Department of Commerce, Bureau of Economic Analysis, *The 1982 Benchmark Input-Output Accounts of the United States* (Washington, DC: U.S. Government Printing Office, 1991); and U.S. Department of Commerce, Bureau of Economic Analysis, *State Personal Income, 1929-87: Estimates and a Statement of Sources and Methods* (Washington, DC: U.S. Government Printing Office, July 1989).

5. See U.S. Department of Commerce, *Regional Input-Output Modeling System (RIMS II)*, chapter 5. Also see Sharon M. Brucker, Steven E. Hastings, and William R. Latham III, "The Variation of Estimated Impacts from Five Regional Input-Output Models," *International Regional Science Review* 13 (1990): 119-39.

For all States, the statistical section presents a summary aggregate-industry table, which State planners and analysts will find convenient for estimating the impacts of project or program expenditures on output, earnings, and employment.

In addition, for the State of California, the statistical section presents a sample of one of five detailed-industry tables that are available from RIMS II, and it presents samples of all five aggregate-industry tables that are available.

Availability of Regional I-O Multipliers From RIMS II

For any region composed of one or more counties, RIMS II can provide two series of tables of I-O multipliers; series A-1 is for detailed industries, and series A-2 is for industry aggregations. Each series consists of five tables: (1) Output multipliers; (2) earnings multipliers; (3) employment multipliers; (4) total final-demand multipliers for output, earnings, and employment; and (5) total direct-effect multipliers for earnings and employment.

Table designation	Type of multiplier	Industry composition	Presentation in handbook	
			State	Page
A-1.1	Output multipliers	39 row industries and 528 column industries	.....	.....
A-1.2	Earnings multipliers	39 row industries and 528 column industries	California .	54-86
A-1.3	Employment multipliers	39 row industries and 528 column industries	.....	.....
A-1.4	Total final-demand multipliers for output, earnings, and employment.	Totals of row industries for 528 industries ...	.....	.....
A-1.5	Total direct-effect multipliers for earnings and employment.	Totals of row industries for 528 industries ...	.....	.....
A-2.1	Output multipliers	39 row industries and 39 column industries	California .	87-89
A-2.2	Earnings multipliers	39 row industries and 39 column industries	California .	90-92
A-2.3	Employment multipliers	39 row industries and 39 column industries	California .	93-95
A-2.4	Total final-demand multipliers for output, earnings, and employment.	Totals of row industries for 39 industries	California .	96
A-2.5	Total direct-effect multipliers for earnings and employment.	Totals of row industries for 39 industries	All States .	3-53
			California .	96
			All States .	3-53

Prices of tables (two series per region) are on a descending scale, starting at \$1,500 per region for the first region ordered. For further information or to place an order, call (202) 523-0586 or write to Regional Economic Analysis Division, BE-61, Bureau of Economic Analysis, U.S. Department of Commerce, Washington, DC 20230.

Output, Earnings, and Employment Multipliers From RIMS II

To help planners and analysts estimate the impacts of project and program expenditures by industry on regional output, earnings, and employment, BEA makes available from RIMS II a set of tables of I-O multipliers (see box at end of preceding section). This section briefly explains the meaning of the I-O multipliers, starting with an explanation of direct requirements coefficients.⁶

Direct Requirements Coefficients

Direct requirements coefficients for a given industry in a region show the inputs of goods and services from the region's industries that the given industry requires to produce a dollar of output. Table 1 shows direct requirements coefficients for a hypothetical region with five industries, including households.⁷ (The data in this table and succeeding tables are for illustrative purposes only). Column 1, for example, shows that to produce a dollar of output, industry 1 requires (1) 6 cents of inputs from regional firms in the same industry, (2) 12 cents, 8 cents, and 3 cents of inputs, respectively, from industries 2 through 4, and (3) 18 cents of labor inputs from households.

6. More comprehensive discussions of I-O multipliers can be found in the following publications: William H. Miernyk, *The Elements of Input-Output Analysis* (New York: Random House, 1965); Ronald E. Miller and Peter D. Blair, *Input-Output Analysis: Foundations and Extensions* (Englewood Cliffs, NJ: Prentice-Hall, 1985); Harry W. Richardson, *Input-Output and Regional Economics* (New York: John Wiley and Sons, 1972); W.A. Schaffer, ed., *On the Use of Input-Output Models for Regional Planning*, Vol. 1 of *Studies in Applied Regional Science* (Leiden, the Netherlands: Martinus Nijhoff, 1976); and Ronald E. Miller, Karen R. Polenske, and Adam Z. Rose, eds., *Frontiers of Input-Output Analysis* (New York and Oxford: Oxford University Press, 1989).

7. Regional I-O multipliers account more fully for the regional economic repercussions of project and program expenditures if households are included as an industry. For more information, see Miller and Blair, *Input-Output Analysis*, in footnote 6.

Table 1.—Industry-by-Industry Direct Requirements for a Hypothetical Region

[Direct requirements from regional industries per dollar of industry output]

	Purchasing industry				
	1	2	3	4	Households
1	0.06	0.15	0.06	0.08	0.08
2 .....	.12	.02	.10	.03	.10
3 .....	.08	.08	.09	.02	.12
4 .....	.03	0	.04	.06	.11
Households .....	.18	.23	.13	.10	.06

NOTE.—Each entry represents the input required directly from the row industry for each dollar of output of the column industry.

Direct requirements coefficients for industry 1 can be viewed as estimates of the dollar changes in output, for each additional dollar of output of industry 1, that occur in regional industries from which industry 1 purchases inputs. These changes typically are called first-round, or direct, changes in output. Per dollar of output of industry 1, direct changes in output total 47 cents (the sum of the entries in column 1).

Total Requirements Coefficients

Compared with direct requirements coefficients, total requirements coefficients for a given industry in a region account more fully for the regional economic repercussions of producing a dollar of output of the given industry. Total requirements coefficients, which are expressed per dollar of output delivered to final demand (that is, to ultimate purchasers, such as consumers outside the region), reflect (1) the initial dollar of final demand for the output of the given industry, (2) direct requirements coefficients (see above), and (3) indirect requirements coefficients. Indirect requirements coefficients for a given industry in a region reflect (1) the regional production required to produce the given industry's direct requirements and (2) the regional production required to meet consumer demand generated by payments from the given industry to households for their labor inputs (often termed the "induced effects").

Table 2 shows total requirements coefficients for the industries from table 1.⁸ Column 1 shows, for example, that to

8. The mathematical derivation of a table of total requirements coefficients from a table of direct requirements coefficients is in U.S. Department of Commerce, *Regional Input-Output Modeling System (RIMS II)*, chapter 4.

Table 2.—Industry-by-Industry Total Requirements for a Hypothetical Region

[Total requirements, direct and indirect, from regional industries per dollar of output delivered to final demand]

	Purchasing industry				
	1	2	3	4	Households
1	1.14	0.22	0.13	0.12	0.15
2 .....	.19	1.10	.16	.07	.16
3 .....	.16	.16	1.16	.06	.19
4 .....	.08	.05	.08	1.09	.15
Households .....	.29	.34	.23	.17	1.17
Total ¹	1.57	1.53	1.53	1.34	.65

1. Excludes entries in households row.

NOTE.—Each entry represents the output required, directly and indirectly, from the row industry for each dollar of output delivered to final demand by the column industry.

deliver a dollar of output to final demand, industry 1 requires, both directly and indirectly, (1) \$1.14 of output from regional firms in the same industry (the initial dollar of final demand for the output of industry 1, plus an additional 14 cents of output) and (2) 19 cents, 16 cents, and 8 cents of output, respectively, from industries 2 through 4. The output that industry 1 requires from itself and from industries 2 through 4 includes earnings paid to households employed in industries 1 through 4. The fifth entry in column 1 is a summation of earnings paid to households; it shows that to deliver a dollar of output to final demand, industry 1 requires, both directly and indirectly, 29 cents of labor from households employed in industries 1 through 4.

Total requirements coefficients for industry 1 can be viewed as estimates of the total (direct and indirect) changes in output that occur in the region's industries for each additional dollar of output of industry 1 delivered to final demand. Because total changes are dollar multiples of the initial dollar spent for the output of industry 1, total changes in output often are called output multipliers. For industry 1, the total (all-industry) final-demand multiplier for output is \$1.57 (the sum of the first four entries in column 1).

The statistical section of this handbook contains a sample table (A-2.1) of output multipliers available from RIMS II for California. The entries in table A-2.1 are the dollar changes in output that occur in 39 row industries per dollar of output delivered to final demand by the same 39 column industries. A similar table (A-1.1, not shown) that shows 39 row industries by 528 column industries also is available from RIMS II. (Appendix II identifies the 528 industries; appendix III shows the distribution of the 528 industries among the 39 industry aggregations).

Earnings Multipliers

Earnings multipliers for a given industry in a region show the earnings that the given industry pays, both directly and indirectly, to households employed in regional industries in connection with delivery of a dollar of output to final demand. Table 3 shows earnings multipliers for the industries from tables 1 and 2. Column 1 shows, for example, that in order for industry 1 to deliver a dollar of output to final demand,

regional firms must pay both directly and indirectly (1) 20 cents of earnings to households employed in the same industry, (2) 4 cents, 2 cents, and 1 cent of earnings, respectively, to households employed in industries 2 through 4, and (3) 2 cents of earnings to household employees.⁹

Earnings multipliers for industry 1 can be viewed as estimates of the total (direct and indirect) dollar changes in earnings that occur in households employed by regional industries for each additional dollar of output of industry 1 delivered to final demand. For industry 1, the total (all-industry) final-demand multiplier for earnings is 29 cents (the sum of the entries in column 1).¹⁰

The statistical section contains sample tables (A-1.2 and A-2.2) of earnings multipliers available from RIMS II for California. The entries in table A-1.2 are the changes in earnings that occur in the households employed by 39 row industries per dollar of output delivered to final demand by 528 column industries. The entries in table A-2.2, which are aggregations of the entries in table A-1.2, are the changes in earnings that occur in the households employed by 39 row industries per dollar of output delivered to final demand by the same 39 column industries.

Employment Multipliers

Employment multipliers for a given industry in a region show the number of full- and part-time jobs that regional industries provide, both directly and indirectly, in order for the given industry to deliver \$1 million of output to final demand.¹¹ Table 4 shows employment multipliers for the industries from tables 1–3. Column 1 shows, for example, that in order for industry 1 to deliver \$1 million of output to final demand, regional firms must provide (1) 18 jobs in the same industry, (2) 3 jobs, 1 job, and 0 jobs, respectively, in industries 2 through 4, and (3) 0 jobs in households.¹²

9. Each column of table 3 is derived by multiplying, in succession, each column entry in table 2 by each entry in the households row of table 1.

10. This total corresponds to the households entry in column 1 of table 2.

11. Output is expressed per \$1 million, rather than per dollar, to minimize cases in which the number of jobs is less than 1. Employment estimates on a job-count basis count all jobs held by an individual.

12. Column 1 of table 4 is derived by multiplying each entry in column 1 of table 3 by the corresponding ratio of employment to earnings. The ratios of employment to

Table 3.—Industry-by-Industry Earnings Multipliers for a Hypothetical Region

[Earnings, direct and indirect, per dollar of output delivered to final demand]

	Purchasing industry				
	1	2	3	4	Households
1	0.20	0.04	0.02	0.02	0.03
2 .....	.04	.25	.04	.02	.04
3 .....	.02	.02	.15	.01	.02
4 .....	.01	.01	.01	.11	.02
Households .....	.02	.02	.01	.01	.06
Total .....	.29	.34	.23	.17	.17

NOTE.—Each entry represents the earnings paid, directly and indirectly, to the households employed by the row industry for each dollar of output delivered to final demand by the column industry.

Table 4.—Industry-by-Industry Employment Multipliers for a Hypothetical Region

[Number of jobs, direct and indirect, per \$1 million of output delivered to final demand]

	Purchasing industry				
	1	2	3	4	Households
1	18	4	2	2	3
2	3	18	3	1	3
3	1	1	9	1	1
4	0	0	0	6	1
Households	0	0	0	0	1
Total	22	23	14	10	9

NOTE.—Each entry represents the number of jobs provided, directly and indirectly, by the row industry for each \$1 million of output delivered to final demand by the column industry.

Employment multipliers for industry 1 can be viewed as estimates of the total (direct and indirect) changes in number of jobs that occur in regional industries for each additional \$1 million of output of industry 1 delivered to final demand. For industry 1, the total (all-industry) final-demand multiplier for employment is 22 jobs (the sum of the entries in column 1).

The statistical section contains a sample table (A-2.3) of employment multipliers available from RIMS II for California. The entries in table A-2.3 are the changes in number of jobs that occur in 39 row industries per \$1 million of output delivered to final demand by the same 39 column industries. A similar table (A-1.3, not shown), with entries showing the changes in number of jobs that occur in 39 row industries per \$1 million of output delivered to final demand by 528 column industries, also is available from RIMS II.

Total Final-Demand Multipliers for Output, Earnings, and Employment

The statistical section also contains a sample table (A-2.4) of total (all-industry) final-demand multipliers for output, earnings, and employment, which is available from RIMS II for California. (The first table in the statistical section contains information corresponding to that in table A-2.4 for all States and the District of Columbia.) Each of the 39 entries in table A-2.4 is a sum of changes that occur in all row industries for

each additional dollar (or, in the case of employment, for each additional \$1 million) of output delivered to final demand by the industry corresponding to the entry. A similar table (A-1.4, not shown), with each of 528 line entries showing a sum of changes that occur in all row industries for each additional dollar (or \$1 million) of output delivered to final demand by the industry corresponding to the entry, also is available from RIMS II.

Total Direct-Effect Multipliers for Earnings and Employment

The statistical section contains a sample table (A-2.5) of total (all-industry) direct-effect multipliers for earnings and employment, which is available from RIMS II for California. (The first table in the statistical section contains information corresponding to that in table A-2.5 for all States and the District of Columbia.) Each entry for earnings is the total dollar change in earnings that occurs in households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry. Each entry for employment is the total change in the number of jobs that occurs in all row industries for each additional job created in the industry corresponding to the entry. A similar table (A-1.5, not shown), with each of 528 line entries showing a sum of changes that occur in earnings (or in number of jobs) in all row industries for each additional dollar of earnings paid directly to households (or for each additional job created) in the industry corresponding to the entry, also is available from RIMS II.

earnings are based on BEA's four-digit Standard Industrial Classification (SIC) county wage-and-salary and employment data.

Information Required From Users of RIMS II

The preceding section explains the meaning of two alternative forms of total multipliers from RIMS II—final-demand multipliers and direct-effect multipliers (see the table for all States in the statistical section). The total final-demand multiplier expresses the total regional economic impact of project and program expenditures relative to a change in final demand for output, and the total direct-effect multiplier expresses the total impact relative to a direct change in household earnings or employment. The two total multipliers should yield the same impacts; the choice of which to use depends on the information available. The total final-demand multiplier requires information on changes in output delivered to final demand in an industry in a region; final-demand changes reflect purchases of goods and services, typically by consumers and businesses outside the region, by investors, and by government.¹³ The total direct-effect multiplier requires information on direct changes in earnings and employment in industries experiencing final-demand changes. This section discusses information that users of RIMS II must supply to use each multiplier.

Appropriate Industrial Detail

The use of final-demand multipliers and of direct-effect multipliers requires the user to decide on the level of industrial detail at which to estimate the impacts.

Total final-demand multipliers

Suppose, for example, that users want to estimate the impact on household earnings in California of a \$100.0 million expenditure by the Federal Government for public works that is divided evenly between the construction and the maintenance and repair of sewer facilities, highways, and streets. Users can view the expenditure as 2 final-demand changes of \$50.0 million each that affect 2 of the 39 industry aggregations in appendix III—in this case, new construction (industry 6) and maintenance and repair construction (industry 7). The impact of the expenditure on household earnings in California is obtained by multiplying each final-demand change—\$50.0 million—by total final-demand multipliers for household earnings for each of the two industry aggregations—0.7531 and 0.8335, respectively (table A-2.4). The total impact on household earnings is the sum of the impacts resulting from the two final-demand changes—\$79.3 million.

13. Demand is referred to as "final" because the goods and services are delivered to the ultimate purchaser, and the economic effects on the output of the region's industries come to an end.

Alternatively, users can view the \$100.0 million expenditure as 4 final-demand changes of \$25.0 million each that affect 4 of the 528 detailed industries in appendix II—in this case, new sewer system facilities construction (industry 11.0307), new highways and streets construction (11.0400), maintenance and repair of sewer facilities (12.0210), and maintenance and repair of highways and streets (12.0214). The impact of the expenditure on household earnings in California—\$79.2 million (slightly less than when industry aggregations are used)—is obtained by multiplying each final-demand change—\$25.0 million—by total final-demand multipliers for household earnings for each of the four detailed industries—0.7359, 0.7407, 0.8406, and 0.8516, respectively (see totals for columns 11.0307, 11.0400, 12.0210, and 12.0214 in table A-1.2).

Total direct-effect multipliers

If users have information on changes in employee earnings in the construction industry that result from the \$100.0 million public works expenditure, then they can use the total direct-effect multiplier to estimate the impact on household earnings. Suppose users know that, as a result of two \$50.0 million changes in final demand, employee earnings in new construction changes by \$15.0 million and employee earnings in maintenance and repair construction changes by \$21.2 million. The impact of the expenditures on household earnings in California is obtained by multiplying each direct earnings change—\$15.0 million and \$21.2 million—by the appropriate total direct-effect multiplier for earnings for each industry aggregation—2.5110 and 1.9616, respectively (see table A-2.5). The sum of the two impacts—\$79.3 million—is the same as that obtained using the total final-demand multipliers for the industry aggregations.

Alternatively, suppose users know that, as a result of four \$25.0 million changes in final demand, employee earnings changes \$4.9 million in new sewer system facilities construction, \$7.4 million in new highways and streets construction, \$12.0 million in maintenance and repair of sewer facilities, and \$12.8 million in maintenance and repair of highways and streets. In this case, the impact of the expenditures on household earnings in California is obtained by multiplying each direct earnings change by the appropriate total direct-effect multiplier for earnings for each of the four detailed industries—3.7351, 2.4934, 1.7464, and 1.6762, respectively (table A-1.5, not shown). The sum of the four impacts—\$79.2 million—is the same as with the total final-demand multipliers for the detailed industries.

The impact of the public works expenditure at a given level of industrial detail is the same using either the direct-effect multiplier or the final-demand multiplier. If a difference had occurred, it probably would have indicated that the RIMS II direct requirements coefficients, or first-round effects (the inputs from other industries that the construction industry requires to produce a dollar of output), were not representative of the case under study. In such situations, users should consider collecting primary data on the input requirements purchased within the region in order to estimate impacts (see the section presenting case studies).

Appropriate Geographic Detail

Users also must decide on the level of geographic detail at which to estimate the economic impacts of project and program expenditures. In some cases, users will choose a county grouping that already has been defined for planning purposes. For example, if users belong to an agency that plans for

California, they might want estimates of the impacts of the expenditure on public works for the State as a whole (all counties). In other cases, users will choose a county grouping that best approximates the region in which the impacts mainly occur. For example, if the public works are to be built in Sacramento County, users might want estimates of the impacts for a grouping of counties, including Sacramento County, in which production of most of the direct and indirect requirements per dollar of public works construction occurs. Such a grouping might be the Sacramento economic area, as defined by BEA; the Sacramento economic area has a metropolitan statistical area of four counties (Sacramento, Placer, El Dorado, and Yolo) as its center and includes seven other counties (Butte, Colusa, Glenn, Nevada, Sierra, Sutter, and Yuba) that are economically related to the center.¹⁴ As stated earlier, multipliers from RIMS II can be estimated for any region composed of one or more counties.

14. The BEA economic areas are described in "BEA Economic Area Projections of Income, Employment, and Population to the Year 2000," *SURVEY OF CURRENT BUSINESS* 70 (November 1990): 39-43.

Illustrative Uses of RIMS II: Case Studies

This section contains four case studies that illustrate how users of RIMS II can estimate the regional economic impacts of project and program expenditures by means of (1) multipliers from RIMS II, (2) information on final-demand changes in industries in regions, and (3) information on direct changes in household earnings and employment in industries in regions. Three of the case studies (1, 3, and 4) also illustrate the use of primary data on regional expenditures to estimate economic impacts. As mentioned in the preceding section, users should consider collecting primary data to estimate impacts if differences occur between impact estimates based on total final-demand multipliers and impact estimates based on total direct-effect multipliers.

Case Study 1: Building a New Electric Utility Facility

Suppose an electric utility plans to invest \$30.0 million to build a new generating facility in California. The investment is a change in final demand; upon completion of the facility, the economic effects on the output of California's industries come to an end. Users want to estimate the impacts of building the facility on California's economy; they can use one of the three methods discussed below.

Method 1: Estimating the impacts using information on final-demand changes

Users must decide on the level of industrial detail to which to assign the building of the facility. They can view the building of the facility as a final-demand change of \$30.0 million in (1) the new construction industry as a whole (industry 6 in appendix III) or (2) the new electric utility facilities construction industry (industry 11.0303 in appendix II).

Table 5 shows the derivation of estimates of the impacts of building the facility using total final-demand multipliers from RIMS II for both the industry aggregation and the detailed industry. The total final-demand multipliers for industrial output, household earnings, and employment for new construction are the totals for column 6 in tables A-2.1, A-2.2, and A-2.3 in the statistical section; the multipliers are summarized in table A-2.4. The total final-demand multipliers for new electric utility facilities construction are the totals for column 11.0303 in RIMS II tables A-1.1, A-1.2, and A-1.3, respectively (only table A-1.2 for California is shown in the statistical section of this handbook).

The impacts in columns 4–6 of table 5 are estimated by multiplying the final-demand change of \$30.0 million by the respective multipliers in columns 1–3. When estimated for the industry aggregation, impacts total \$74.3 million in industrial output, \$22.6 million in household earnings, and 795 jobs. When estimated for the detailed industry, impacts total \$77.8 million in industrial output, \$23.7 million in household earnings, and 765 jobs.

Method 2: Estimating the impacts using information on direct changes in household earnings and employment

Suppose construction of the facility directly creates 190 jobs and \$7.0 million in associated household earnings in California's construction industry. Users can estimate the total impacts on household earnings and employment using this information on the direct impacts. Users again must decide on the level of industrial detail to which to assign the building of the facility.

Table 6 shows the derivation of estimates of the impacts of building the facility using total direct-effect multipliers from RIMS II for both the industry aggregation and the detailed

Table 5.—Total Final-Demand Multipliers for Output, Earnings, and Employment and Total Impacts on Output, Earnings, and Employment of a \$30.0 Million Change in Final Demand, Aggregated and Detailed Construction Industries, California

Construction industry	Multipliers			Impacts ⁴		
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Output (thousands of dollars)	Earnings (thousands of dollars)	Employment (number of jobs)
	(1)	(2)	(3)	(4)	(5)	(6)
New construction	2.4756	0.7531	26.5	74,268	22,593	795
New electric utility facilities	2.5920	.7893	25.5	77,760	23,679	765

1. Each entry in column 1 represents the total dollar change in output that occurs in all industries for each additional dollar of output delivered to final demand by the corresponding construction industry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all industries for each additional dollar of output delivered to final demand by the corresponding construction industry.

3. Each entry in column 3 represents the total change in number of jobs in all industries for each additional 1 million dollars of output delivered to final demand by the corresponding construction industry.

4. For each construction industry, the entries in columns 4, 5, and 6 are obtained by multiplying \$30.0 million by the entries in columns 1, 2, and 3, respectively.

industry. The impacts in columns 3 and 4 are estimated by multiplying the direct changes (190 construction jobs and \$7.0 million in construction earnings) by the respective multipliers in columns 1 and 2. When estimated for the industry aggregation, impacts total \$17.6 million in household earnings and 623 jobs. When estimated for the detailed industry, impacts total \$22.4 million in household earnings and 1,048 jobs.

The impacts estimated with method 2 (table 6) differ substantially from those estimated with method 1 (table 5). For example, the employment impact for the detailed industry using method 2 (1,048 jobs) is 37 percent higher than the corresponding employment impact using method 1 (765 jobs). In theory, no difference should occur; the difference often indicates that the direct requirements coefficients, or first-round effects (the inputs from other industries that the construction industry requires to produce a dollar of output) estimated by

RIMS II are not representative of the case being analyzed. To the extent that the first-round effects are not representative, the accuracy of the impact estimates can be improved by the use of primary data on expenditures by the construction industry.

Method 3: Estimating the impacts using information on construction industry expenditures

Users with information on expenditures made by the construction industry within California to build the facility can estimate the total impacts on industrial output, household earnings, and employment by treating the construction expenditures as final-demand changes and by applying these changes to the appropriate RIMS II multipliers. The information on expenditures provides users with their own estimates of the first-round effects on industry output; they need not use RIMS II estimates of the first-round effects. Inasmuch as the first-round effects typically account for a large share of total impacts, users can better estimate total impacts with the presumably more accurate primary data.

Suppose the construction industry, in order to build the facility, spends \$26.6 million in California, divided among industries as follows:

Table 6.—Total Direct-Effect Multipliers for Earnings and Employment and Total Impacts on Earnings and Employment of a Direct Change in Earnings of \$7.0 Million and a Direct Change in Employment of 190 Jobs, Aggregated and Detailed Construction Industries, California

Construction industry	Multipliers		Impacts	
	Earnings ¹ (dollars)	Employment ² (number of jobs)	Earnings ³ (thousands of dollars)	Employment ⁴ (number of jobs)
	(1)	(2)	(3)	(4)
New construction	2.5110	3.2799	17,577	623
New electric utility facilities	3.1933	5.5153	22,353	1,048

1. Each entry in column 1 represents the total dollar change in earnings of households employed by all industries for each additional dollar of earnings paid directly to households employed by the corresponding construction industry.

2. Each entry in column 2 represents the total change in number of jobs in all industries for each additional direct job in the corresponding construction industry.

3. For each construction industry, the entries in column 3 are obtained by multiplying \$7.0 million by the entries in column 1.

4. For each construction industry, the entries in column 4 are obtained by multiplying 190 jobs by the entries in column 2.

	Thousands of dollars
Manufacturing:	
Concrete	2,662
Structural metal	5,993
Wiring devices	4,447
Pipes	3,194
Architectural and engineering services	3,324
Earnings paid to California households	7,000
Total	26,620

Table 7.—Total Final-Demand Multipliers for Output, Earnings, and Employment, and Total Impacts on Output, Earnings, and Employment of Selected Expenditures, Construction-Related Industries, California

Construction-related industry	Multipliers			Impacts ⁴		
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Output (thousands of dollars)	Earnings (thousands of dollars)	Employment (number of jobs)
	(1)	(2)	(3)	(4)	(5)	(6)
Ready-mixed concrete	2.3575	0.5908	20.8	6,276	1,573	55
Fabricated structural metal	2.2160	.6289	23.2	13,280	3,769	139
Wiring devices	2.1797	.6692	26.2	9,693	2,976	117
Pipe, valves, and pipe fittings	1.9816	.5854	20.0	6,329	1,870	64
Engineering, architectural, and surveying services	2.6909	1.1495	41.1	8,945	3,821	137
Households	1.4174	.4209	18.6	9,922	2,946	130
Subtotal				54,445	16,955	642
Plus: Direct impact				30,000	7,000	190
Equals: Total				84,445	23,955	832

1. Each entry in column 1 represents the total dollar change in output that occurs in all industries for each additional dollar of output delivered to final demand by the corresponding construction-related industry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all industries for each additional dollar of output delivered to final demand by the corresponding construction-related industry.

3. Each entry in column 3 represents the total change in number of jobs in all industries for each additional 1 million dollars of output delivered to final demand by the corresponding construction-related industry.

4. For each construction-related industry, the entries in columns 4, 5, and 6 are obtained by multiplying the entries in columns 1, 2, and 3 by the respective expenditures.

Assume that the manufactured inputs are purchased from the manufacturer rather than from the wholesale trade or retail trade sectors. (Case study 3 provides an example of purchases made from the trade sectors.)

Users must decide on the level of industrial detail to which to assign the expenditures. Assume that users view the expenditures as final-demand changes in the detailed industry (appendix II) that most closely matches the industry for which expenditures are known.

The impacts in columns 4-6 of table 7 are estimated by multiplying the expenditures by the respective multipliers in columns 1-3. For example, the impacts associated with the expenditures on concrete are obtained by multiplying the expenditure (\$2.6 million) by the entries for ready-mixed concrete in columns 1-3. As another exam-

ple, the impacts associated with the gross earnings paid to households—reflecting changes in household consumption expenditures—are obtained by multiplying earnings paid (\$7.0 million) by the multipliers for households. The total impacts of the expenditures by the construction industry are the sum of (1) the industry impacts (see subtotals in table 7) and (2) the direct impacts on the construction industry itself. The total impact on California's industrial output is obtained by adding \$54.4 million (the subtotal for column 4) and \$30.0 million (the direct change in the output of the construction industry). The total impact on household earnings is obtained by adding \$16.9 million (the subtotal for column 5) and \$7.0 million (the direct change in the earnings of construction workers). The total impact on employment is obtained by adding 642 jobs (the subtotal for column 6) and 190 jobs (the direct change in construction industry jobs).

Table 8.—Multipliers, by Industry, for Output, Earnings, and Employment, and Impacts, by Industry, on Output, Earnings, and Employment of a \$50.0 Million Change in Final Demand, Electric and Electronic Equipment Industry, California

		Multipliers			Impacts ⁴		
		Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Output (thousands of dollars)	Earnings (thousands of dollars)	Employment (number of jobs)
		(1)	(2)	(3)	(4)	(5)	(6)
1	Agricultural products and agricultural, forestry, and fishery services	0.0129	0.0034	0.2	645	170	10
2	Forestry and fishery products .....	.0006	.0001	0	30	5	0
3	Coal mining	0	0	0	0	0	0
4	Crude petroleum and natural gas .....	.0284	.0028	.1	1,420	140	5
5	Miscellaneous mining .....	.0009	.0002	0	45	10	0
6	New construction	0	0	0	0	0	0
7	Maintenance and repair construction .....	.0236	.0100	.3	1,180	500	15
8	Food and kindred products and tobacco .....	.0462	.0058	.2	2,310	290	10
9	Textile mill products .....	.0015	.0003	0	75	15	0
10	Apparel .....	.0159	.0042	.3	795	210	15
11	Paper and allied products .....	.0117	.0023	.1	585	115	5
12	Printing and publishing .....	.0277	.0083	.3	1,385	415	15
13	Chemicals and petroleum refining .....	.0691	.0037	.1	3,455	185	5
14	Rubber and leather products .....	.0298	.0074	.3	1,490	370	15
15	Lumber and wood products and furniture .....	.0095	.0025	.1	475	125	5
16	Stone, clay, and glass products .....	.0077	.0020	.1	385	100	5
17	Primary metal industries .....	.0265	.0059	.2	1,325	295	10
18	Fabricated metal products .....	.0419	.0112	.4	2,095	560	20
19	Machinery, except electrical .....	.0217	.0064	.2	1,085	320	10
20	Electric and electronic equipment	1.1771	.4071	11.3	58,855	20,355	565
21	Motor vehicles and equipment .....	.0025	.0004	0	125	20	0
22	Transportation equipment, except motor vehicles .....	.0033	.0010	0	165	50	1
23	Instruments and related products .....	.0064	.0020	.1	320	100	5
24	Miscellaneous manufacturing industries .....	.0057	.0013	.1	285	65	5
25	Transportation .....	.0511	.0196	.7	2,555	980	35
26	Communication .....	.0436	.0129	.3	2,180	645	15
27	Electric, gas, water, and sanitary services .....	.0490	.0035	.1	2,450	175	5
28	Wholesale trade .....	.1222	.0503	1.5	6,110	2,515	75
29	Retail trade .....	.0800	.0389	2.1	4,000	1,945	105
30	Finance .....	.0414	.0173	.5	2,070	865	25
31	Insurance .....	.0247	.0105	.3	1,235	525	15
32	Real estate .....	.1386	.0038	.1	6,930	190	5
33	Hotels and lodging places and amusements .....	.0264	.0070	.3	1,320	350	15
34	Personal services .....	.0149	.0069	.4	745	345	20
35	Business services .....	.0811	.0433	1.6	4,055	2,165	80
36	Eating and drinking places .....	.0487	.0152	1.4	2,435	760	70
37	Health services .....	.0555	.0336	1.0	2,775	1,680	50
38	Miscellaneous services .....	.0458	.0160	.9	2,290	800	45
39	Households .....	.7695	.0023	.3	38,475	115	15
	Total	2.3937	.7695	25.9	119,685	38,475	1,295

1. Each entry in column 1 represents the dollar change in output that occurs in each row industry for each additional dollar of output delivered to final demand by the electric and electronic equipment industry. The column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. The column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

2. Each entry in column 2 represents the dollar change in earnings of households employed by each row industry for each additional dollar of output delivered to final demand by the electric and electronic equipment industry. The column total equals the entry in row

39, column 1.

3. Each entry in column 3 represents the change in number of jobs in each row industry for each additional 1 million dollars of output delivered to final demand by the electric and electronic equipment industry.

4. For each row industry, the entries in column 4, 5, and 6 are obtained by multiplying \$50.0 million by the entries in columns 1, 2, and 3, respectively.

NOTE.—Column entries may not sum to totals due to rounding.

Case Study 2: Operating a Manufacturing Plant

Suppose a California firm that makes electric industrial controls (for example, motor starters) plans to increase annual sales to foreign markets by \$50.0 million. The export of industrial controls is a change in final demand because the goods are delivered to the ultimate purchaser and the economic effects on the output of California's industries come to an end. Users want to estimate the impacts of the exports on California's economy.

Users can view the exports as a final-demand change of \$50.0 million occurring in (1) the electric and electronic equipment industry as a whole (industry 20 in appendix III) or (2) the industrial controls equipment industry (industry 53.0500 in appendix II). Assume that they choose the electric and electronic equipment industry.

Table 8 shows the derivation of estimates of the impacts of increased exports using multipliers from RIMS II. Column 1 reproduces column 20, table A-2.1, from the statistical section. Each entry in column 1 is the dollar change in output that occurs in each row industry for each additional dollar of output delivered to final demand by the electric and electronic equipment industry. To obtain the dollar impact on the output of each row industry of an additional \$50.0 million of output delivered to final demand by the manufacturer, multiply each entry in column 1 by \$50.0 million. Column 4 shows the resulting impacts; the column total—\$119.7 million—is the dollar impact on the output of all industries.

Column 2 reproduces column 20, table A-2.2, from the statistical section. Each entry in column 2 is the dollar change in earnings of households employed by each row industry for each additional dollar of output delivered to final demand by the electric and electronic equipment industry. To obtain the impact on earnings paid to households by each row industry of an additional \$50.0 million of output delivered to final demand by the manufacturer, multiply each entry in column 2 by \$50.0 million. Column 5 shows the resulting impacts; the column total—\$38.5 million—is the impact on the earnings paid to households by all industries.

Column 3 reproduces column 20, table A-2.3, from the statistical section. Each entry in column 3 shows the change in number of jobs in each row industry for each additional \$1 million of output delivered to final demand by the electric and electronic equipment industry. To estimate the impact on the number of jobs provided by each row industry of an additional \$50.0 million of output delivered to final demand by the manufacturer, multiply each entry in column 3 by \$50.0 million. Column 6 shows the resulting impacts; the column total—1,295 jobs—is the impact on the number of jobs provided by all industries.

This case study presents the impacts both on an all-industry-total basis (as in case study 1) and on an industry-by-industry basis. The additional industry information can be useful for planning purposes. For example, the impact on the output of the retail trade industry (table 8, row 29, column 4) can be used to estimate the change in sales tax revenues that result from the increase in exports. In input-output terms, retail trade output, which is referred to as "margin," consists

of operating expenses, profits, sales taxes, and excise taxes. The first step in estimating the change in sales tax revenues is to adjust the impact on retail trade output (\$4.0 million) to reflect the impact on retail sales. This adjustment is made by dividing the impact on retail trade output by an estimated retail trade margin.¹⁵ If users estimate the retail trade margin to be 20 percent of retail sales, then the impact on retail sales is \$20.0 million (\$4.0 million divided by 0.20). The change in sales tax revenues is then estimated as the impact on retail sales multiplied by the sales tax rate; for example, a sales tax rate of 4 percent times the \$20.0 million impact on retail sales yields a change in sales tax revenues of \$0.8 million.

Case Study 3: Shutting Down a Military Base

Suppose the Federal Government plans to shut down a military base in the San Francisco area. Users of RIMS II want to estimate the impacts of the shutdown on the region where most of the impacts are expected to occur. Users choose the San Francisco-Oakland Metropolitan Statistical Area (MSA) as the region for analysis.

Suppose the Federal Government, in order to operate the military base, spends \$100.0 million annually in the MSA, divided among industries as follows:

	Thousands of dollars
Maintenance and repair construction.....	4,969
Manufacturing.....	25,891
Machinery, except electrical.....	18,394
Lumber and wood products and furniture.....	488
Electric and electronic equipment.....	2,795
Fabricated metal products.....	1,819
Motor vehicles and equipment.....	2,395
Communication.....	6,522
Electric, gas, water, and sanitary services.....	19,476
Business services.....	6,477
Miscellaneous services.....	1,065
Earnings paid to military personnel.....	35,600
Total.....	100,000

Impacts of expenditures for nonmanufactured goods and services

The expenditures for maintenance and repair construction, for communication, for electric, gas, water, and sanitary services, for business services, and for miscellaneous services are changes in final demand. For these industries, the impacts are estimated by multiplying each final-demand change by the appropriate RIMS II multiplier.

15. See the table "Personal Consumption Expenditures by NIPA Categories (1982)," available from BEA's Interindustry Economics Division.

Impacts of expenditures for manufactured goods

Suppose all manufactured goods are purchased from wholesalers; then these expenditures reflect charges for the output of wholesalers and transporters, as well as of manufacturers. In input-output terms, wholesale trade output, like retail trade output, is referred to as "margin" and consists of operating expenses, profits, sales taxes, and excise taxes. Before users can calculate the impacts of the expenditures for manufacturing, they must convert the expenditures for each manufactured good into charges for wholesale trade, for transportation, and for manufacturing. For each manufactured good, the charges—which must sum to the total expenditure for the good—can be estimated by multiplying the total expenditure by the percentage shares of the price paid for the good (as reflected in the Federal Government's defense budget) that are accounted for by wholesale margins, by transportation costs, and by producers' prices.¹⁶ For example, the individual charges associated with the expenditure for motor vehicles and equipment can be estimated by multiplying the expenditure (\$2.4 million) by the shares of the price paid for motor vehicles and equipment that are accounted for by wholesale margins (5 percent), transportation costs (3 percent), and producers' prices (92 percent).

The individual charges are final-demand changes in the MSA if the wholesalers, transporters, and manufacturers are located there; otherwise, they are imports from outside the region and have no impact. Suppose that for motor vehicles and equipment, only the wholesalers are located in the MSA, and suppose that for the other manufactured goods, the transporters and manufacturers, as well as the wholesalers, are located in the MSA. The resulting estimates of the final-demand changes associated with the manufactured goods are as follows:

	Thousands of dollars
Wholesale trade	2,637
Transportation	175
Manufacturing	20,798
Machinery, except electrical	16,093
Lumber and wood products and furniture	407
Electric and electronic equipment	2,666
Fabricated metal products	1,632
Motor vehicles and equipment	0
Total	23,610

The difference between the total final-demand change for manufacturing (\$23.6 million) and total expenditures for manufacturing (\$25.9 million) is the sum of the manufacturers' and transporters' charges associated with the expenditure for motor vehicles and equipment. The impacts of the expenditures for manufacturing now can be estimated by multiplying each final-demand change associated with the manufactured goods by the appropriate RIMS II multiplier.

Impacts of expenditures by military personnel

The final Federal Government expenditure whose impacts must be estimated is the earnings paid to military personnel. A change in these earnings will lead to a change in consumption expenditures in the MSA. Estimation of the impacts of the change in consumption is complicated by two factors. First, the final-demand change to be used with RIMS II multipliers for impact estimation is the change in earnings spent in the MSA by military personnel—not the change in earnings received by them. For civilians, earnings spent in the MSA can be assumed to equal earnings received; for military personnel, in contrast, earnings spent in the MSA can be less than earnings received because spending can occur at base facilities. Second, the consumption pattern of military personnel can differ from the civilian consumption pattern that is reflected in the multipliers for the households industry in RIMS II.¹⁷ For example, compared with civilians, military personnel receive a larger share of total earnings from payments-in-kind for clothing and housing, so they allocate a smaller share of total spending to these consumption items. In light of the contrast with civilian consumption, primary data on the consumption pattern of military personnel may be necessary in order to estimate impacts.

To estimate expenditures made in the local economy by military personnel usually requires the cooperation of the military base personnel. Suppose that, with cooperation from base personnel, the user estimates that purchases in the MSA by military personnel are as follows:

	Thousands of dollars
Manufacturing	2,346
Food and kindred products and tobacco	346
Apparel	500
Lumber and wood products and furniture	500
Chemicals and petroleum refining	1,000
Transportation	100
Communication	237
Electric, gas, water, and sanitary services	300
Hotels and lodging places and amusements	1,543
Personal services	1,781
Eating and drinking places	3,560
Miscellaneous services	2,000
Total	11,867

The expenditures for services are changes in final demand; the impacts are estimated by multiplying each final-demand change by the appropriate RIMS II multiplier.

The expenditures for manufactured goods reflect charges for the output of wholesalers, retailers, and transporters, as well as of manufacturers. Assume that the wholesalers, retailers, and transporters are located in the MSA and that the manufacturers are located outside the MSA. Then the charges for wholesale trade, retail trade, and transportation output (but not manufacturing output) are changes in final demand in the MSA.

16. See the table "Input-Output Commodity by Fixed Investment Category (1982)," available from BEA's Interindustry Economics Division.

17. Typically, these multipliers are used to estimate the impacts of a change in consumption. This approach may not be appropriate when households are military personnel.

Before users can calculate the impacts on the MSA of the expenditures by military personnel for manufactured goods, they must convert the expenditures for each good into final-demand changes in wholesale trade, in retail trade, and in transportation. For each good, the final-demand changes can be estimated by multiplying the total expenditure by the percentage shares of national personal consumption expenditures (PCE) for the good that are accounted for by the wholesale trade, retail trade, and transportation industries.¹⁸ For example, the final-demand changes associated with the expenditure for food and tobacco can be estimated by multiplying the expenditure (\$0.3 million) by the shares of national PCE for food and tobacco that are accounted for by wholesale trade margins (9 percent), retail trade margins (23 percent), and transportation costs (2 percent). The resulting estimates of the total final-demand changes in wholesale trade, in retail trade, and in transportation that are associated with the expenditures by military personnel for manufactured goods are as follows:

	Thousands of dollars
Transportation	11
Wholesale trade	66
Retail trade	490
Total	567

The difference between the total final-demand change for manufactured goods (\$0.6 million) and the total expenditures for manufactured goods (\$2.3 million) is the manufactur-

18. See the table "Personal Consumption Expenditures by NIPA Categories (1982)," available from BEA's Interindustry Economics Division.

ers' portion of the charges for the goods; manufacturers are located outside the MSA.

Total impacts

The total changes in final demand from shutting down (or conversely, operating) a military base are those associated with expenditure changes on the parts of both the military base as a whole and the base personnel, as discussed above. Assume that users choose to assign the final-demand changes to industry aggregations from appendix III; the changes are shown in table 9, column 1. This table shows the derivation of the impacts of shutting down the military base, using total multipliers from RIMS II for the defense-related industries to which the final-demand changes are assigned. For example, to estimate the impact on the earnings of households employed by all industries of \$5.0 million of maintenance and repair construction not delivered to final demand, multiply \$5.0 million (column 1) by the total final-demand multiplier for earnings for the maintenance and repair construction industry—0.7661 (column 3). When summed for all defense-related industries, impacts total \$155.5 million in output, \$40.4 million in earnings, and 1,555 jobs.

The shutdown reduces economic activity in the MSA and so has a "negative" impact. If the military base is to be put to a different use after shutdown, economic activity will increase and have a "positive" impact on the MSA. RIMS II multipliers can be used to estimate the positive impacts of the reuse. For example, if the military base is to be used for an industrial and recreational park, positive impacts will occur from the construction of industrial and recreational structures, mainly during the construction period. Over a longer timespan, positive impacts will occur from the operation of new businesses

Table 9.—Total Final-Demand Multipliers for Output, Earnings, and Employment, and Total Impacts on Output, Earnings, and Employment of a \$72.2 Million Change in Final Demand, Defense-Related Industries, San Francisco-Oakland MSA

Defense-related industry	Change in final demand (thousands of dollars)	Multipliers			Impacts ⁴		
		Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Output (thousands of dollars)	Earnings (thousands of dollars)	Employment (number of jobs)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Maintenance and repair construction	4,969	2.1992	0.7661	28.5	10,928	3,807	142
Machinery, except electrical	16,093	2.0645	.6257	21.1	33,224	10,069	340
Lumber and wood products and furniture	407	1.9680	.5635	23.7	801	229	10
Electric and electronic equipment	2,666	2.1791	.6709	22.6	5,809	1,789	60
Fabricated metal products	1,632	2.0664	.5455	20.4	3,372	890	33
Wholesale trade	2,703	1.9790	.6972	24.4	5,349	1,885	66
Retail trade	490	2.2247	.8360	41.3	1,090	410	20
Transportation	286	2.3515	.7128	26.2	673	204	7
Communication	6,759	1.7597	.5194	17.2	11,894	3,511	116
Electric, gas, water, and sanitary services	19,776	2.3494	.2474	7.9	46,462	4,893	156
Hotels and lodging places and amusements	1,543	2.1013	.6305	26.9	3,242	973	42
Personal services	1,781	2.1260	.8052	44.7	3,786	1,434	80
Business services	6,477	2.2255	.9098	35.3	14,415	5,893	229
Eating and drinking places	3,560	2.0787	.6118	40.8	7,400	2,178	145
Miscellaneous services	3,065	2.2880	.7378	35.4	7,013	2,261	109
Total	72,207				155,458	40,426	1,555

1. Each entry in column 2 represents the total dollar change in output that occurs in all industries for each additional dollar of output delivered to final demand by the corresponding defense-related industry.

2. Each entry in column 3 represents the total dollar change in earnings of households employed by all industries for each additional dollar of output delivered to final demand by the corresponding defense-related industry.

3. Each entry in column 4 represents the total change in number of jobs in all industries for each additional 1 million dollars of output delivered to final demand by the corresponding defense-related industry.

4. For each defense-related industry, the entries in columns 5, 6, and 7 are obtained by multiplying the entry in column 1 by the entries in columns 2, 3, and 4, respectively.

and from expenditures by tourists who visit the recreational park. The difference between the positive impacts of the reuse and the negative impacts of the base shutdown provides an estimate of the net gain or loss to the MSA in terms of output, earnings, and employment.

Case Study 4: Operating an Airport

Suppose the output sold to final demand in the San Francisco-Oakland MSA by an airport is \$2.0 billion, and users want to estimate the impacts of these sales on the MSA.¹⁹ In this case, users must be aware of the difference between the output sold to final demand by the airport and the expenditure changes that occur in the MSA in order to satisfy final demand. For example, the revenues collected in San Francisco for a San Francisco to New York flight partly reflect expenditures made in New York for fuel and ground crews. Thus, it may be inappropriate to estimate the impacts on the MSA by multiplying airport sales (\$2.0 billion) by RIMS II multipliers for the transportation industry.

With information on expenditures made in the San Francisco-Oakland MSA by the airport to produce the sales to final demand, users can estimate the total impacts on output, earnings, and employment by treating the expenditures as final-demand changes and by applying these changes to the appropriate RIMS II multipliers. Suppose that, with cooperation from airport and air carrier personnel, the user estimates

that annual expenditures in the MSA that are associated with sales to final demand are as follows:

	Millions of dollars
Fuel	1,000
Wages and salaries	200
Electricity	80
Communication	40
Contracted cleaning services	32
Food for flight crews	22
Lodging for flight crews	44
Total	1,418

Assuming that users choose to assign the expenditures for operating the airport to detailed industries from appendix II, they can view the expenditures as final-demand changes for the airport-related industries shown in table 10, column 1; the final-demand changes then are tied to total final-demand multipliers from RIMS II. For example, after assignment of fuel purchases to petroleum refining, the multipliers for petroleum refining (industry 31.0101 in appendix II) are used.²⁰ The impacts in columns 5–7 are estimated by multiplying the final-demand changes in column 1 by the respective multipliers in columns 2–4. To estimate the impact on the output of all industries of an additional \$1.0 billion of fuel delivered to final demand by the petroleum refining industry, multiply \$1.0 billion by the total final-demand multiplier for the output of petroleum refining—1.8713 (column 2).

The total impacts of the expenditures in the MSA by the airport are the sum of (1) the industry impacts (see subtotals in table 10) and (2) the direct impacts on the airport itself. The total impact on output in the MSA is obtained by adding

19. When the effects of household spending are included in the multiplier, the output sold to MSA residents who use the airport for vacation travel should not be included in the output sold to final demand in the MSA.

20. If fuel purchases are made from a wholesaler, then an estimate of the wholesale trade margin is assigned to the wholesale trade industry, and the wholesale trade multiplier is used. See case study 3 for a discussion of wholesale trade margins.

Table 10.—Total Final-Demand Multipliers for Output, Earnings, and Employment, and Total Impacts on Output, Earnings, and Employment of a \$1.4 Billion Change in Final Demand, Airport-Related Industries, San Francisco-Oakland MSA

Airport-related industry	Change in final demand (millions of dollars)	Multipliers			Impacts ⁴		
		Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Output (millions of dollars)	Earnings (millions of dollars)	Employment (number of jobs)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Petroleum refining	1,000	1.8713	0.1606	5.2	1,871	161	5,200
Households	200	1.2979	.3863	17.3	260	77	346
Electric services (utilities)	80	1.7957	.2804	8.7	144	22	696
Communication, except radio and TV	40	1.7111	.5113	17.1	68	20	684
Services to dwellings and other buildings	32	2.1393	.9008	54.4	68	29	1,741
Eating and drinking places	22	2.0624	.6126	41.0	45	13	902
Hotels and lodging places	44	2.0614	.6397	34.2	91	28	1,505
Subtotal	1,418				2,547	350	11,074
Plus: Direct impact					2,000	200	5,720
Equals: Total					4,547	550	16,794

1. Each entry in column 2 represents the total dollar change in output that occurs in all industries for each additional dollar of output delivered to final demand by the corresponding airport-related industry.

2. Each entry in column 3 represents the total dollar change in earnings of households employed by all industries for each additional dollar of output delivered to final demand by the corresponding airport-related industry.

3. Each entry in column 4 represents the total change in number of jobs in all industries for each additional 1 million dollars of output delivered to final demand by the corresponding airport-related industry.

4. For each airport-related industry, the entries in columns 5, 6, and 7 are obtained by multiplying the entry in column 1 by the entries in columns 2, 3, and 4, respectively.

\$2.5 billion (the subtotal of the entries in column 5) and \$2.0 billion (the direct change in output). The total impact on household earnings is obtained by adding \$350 million (the subtotal of the entries in column 6) and \$200 million (the direct change in household earnings from column 1). Assuming employment at the airport is 5,720, then the total employment impact from airport operations is obtained by adding 11,074 (the subtotal of the entries in column 7) and 5,720.

A more comprehensive analysis of the impacts on the MSA of airport operations could reflect final-demand changes at-

tributable to airport operations in industries that partly depend on airport operations. These industries include freight forwarders and other transportation services (industry 65.0701, appendix II); arrangement of passenger transportation (industry 65.0702); and tourist-related industries, such as eating and drinking places (industry 74.0000), hotels and lodging places (industry 72.0100), retail trade (industry 69.0200), and local and suburban transit (industry 65.0200). For the tourist-related industries, the final-demand changes to be used with RIMS II multipliers are the expenditures made by tourists for the output of these industries.

Appendix I

Further Reading

Those documents labeled "Available from BEA" can be obtained by writing to Regional Economic Analysis Division, BE-61, Bureau of Economic Analysis, U.S. Department of Commerce, Washington, DC 20230.

Beemiller, Richard M. "Hybrid Approach to Estimating Economic Impacts Using the Regional Input-Output Modeling System (RIMS II)." *Transportation Research Record* 1274 (1990): 89-96.

_____. "Improving Accuracy by Combining Primary Data with RIMS: Comment on Bourque." *International Regional Science Review* 13 (1990): 99-101.

_____. "Local Area Fiscal Impact Analysis Using the Regional Input-Output Modeling System (RIMS II)." *Socio-Economic Planning Sciences* 23 (1989): 261-69.

_____, and Zoe O. Ambargis. "A Comparison of RIMS II Input-Output Multipliers Based upon 1972 Industrial Relationships with Those Based upon 1977 Relationships." Paper presented at the annual meeting of the Southern Regional Science Association, Washington, DC, May 9-11, 1985. Available from BEA.

Cartwright, Joseph V. "Estimating the Spatial Distribution of Program Impacts Within Metropolitan Areas." Paper presented at the annual meeting of the Southern Regional Science Association, Nashville, TN, April 14-16, 1979. Available from BEA.

_____, and Zoe O. Ambargis. "Location Quotients and Trade in Regional I-O Tables." Paper presented at the annual meeting of the Southern Regional Science Association, Orlando, FL, May 2-4, 1984. Available from BEA.

Kort, John R., and Joseph V. Cartwright. "Modeling the Multiregional Economy: Integrating Econometric and Input-Output Models." *The Review of Regional Studies* 11 (Fall 1981): 1-17.

_____, Joseph V. Cartwright, and Richard M. Beemiller. "Linking Regional Economic Models for Policy Analysis." *International Series in Economic Modeling*.

Edited by James Schmidt and M. Ray Perryman. Vol. I: *Regional Economic Modeling*. Hingham, MA: Kluwer-Nijhoff, 1986.

U.S. Department of Commerce. Bureau of Economic Analysis. *Regional Input-Output Modeling System: Estimation, Evaluation, and Application of a Disaggregated Regional Impact Model*. Written by Joseph V. Cartwright, Richard M. Beemiller, and Richard D. Gustely. Washington, DC: U.S. Government Printing Office, 1981. Available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161: Accession No. PB-82-168-865; price \$26 (paper copy), \$9 (microfiche).

_____. *Regional Multipliers: A User Handbook for the Regional Input-Output Modeling System (RIMS II)*. Washington, DC: U.S. Government Printing Office, 1986.

U.S. Department of Defense. President's Economic Adjustment Committee, Office of Economic Adjustment. *Modeling the Regional Economic Impacts of Major New Military Bases*. Prepared by the U.S. Department of Commerce, Bureau of Economic Analysis. Washington, DC: U.S. Department of Defense, April 1983. Available from BEA.

_____. *The Regional Economic Impact of Military Base Spending*. Prepared by the U.S. Department of Commerce, Bureau of Economic Analysis. Washington, DC: U.S. Department of Defense, November 1980. Available from BEA.

U.S. Nuclear Regulatory Commission. Office of Nuclear Reactor Regulation. *Estimating the Potential Impacts of a Nuclear Reactor Accident: Methodology and Case Studies*. Written by J.V. Cartwright, R.M. Beemiller, E.A. Trott, Jr., and J.M. Younger. Prepared by the U.S. Department of Commerce, Bureau of Economic Analysis. Washington, DC: U.S. Nuclear Regulatory Commission, April 1982. Available from the Commission's Division of Technical Information and Document Control, Washington, DC 20555: Accession No. NUREG/CR-2591; price \$6.50.

Appendix II

Detailed Industries for Which Multipliers Are Available ¹

[The detailed industries are based on the 1982 benchmark input-output accounts. The titles in boldface represent the groupings of industries used for the summary version of the 1982 tables. An asterisk preceding an SIC code indicates that the SIC industry is included in more than one I-O industry.]

Industry number and title	Related 1972 SIC codes	Industry number and title	Related 1972 SIC codes
AGRICULTURE, FORESTRY, AND FISHERIES		6 Nonferrous metal ores mining:	
1 Livestock and livestock products:		6.0100 Copper ore	102
1.0100 Dairy farm products	0241, *0191, *0259, 0291	6.0200 Nonferrous metal ores, except copper	103-5, *108, 109
1.0200 Poultry and eggs	025 (excl. 0254 and *0259), *0191, *0219, *0291	7 Coal mining:	
1.0303 Meat animals and livestock	021, *0191, *0259, *0291, 027 (excl. *0279)	7.0000 Coal	1111, *1112, 1211, *1213
2 Other agricultural products:		8 Crude petroleum and natural gas:	
2.0100 Cotton	0131, *0191, *0219, *0259, *0291	8.0000 Crude petroleum and natural gas	131, 132
2.0201 Food grains	*011, *0191, *0219, *0259, *0291	9 Stone and clay mining and quarrying:	
2.0202 Feed grains	*011, *0139, *0191, *0219, *0259, *0291	9.0001 Dimension, crushed and broken stone	141-2
2.0203 Grass seeds	*0139, *0191, *0219, *0259, *0291	9.0002 Sand and gravel	144
2.0300 Tobacco	0132, *0191, *0219, *0259, *0291	9.0003 Clay, ceramic, and refractory minerals	145
2.0401 Fruits	*017, *0191, *0219, *0259, *0291	9.0004 Nonmetallic mineral services and miscellaneous minerals.	*148, 149
2.0402 Tree nuts	0173, *0179, *0191, *0219, *0259, *0291	10 Chemical and fertilizer mineral mining:	
2.0501 Vegetables	0134, 0161, *0119, *0139, *0191, *0219, *0259, *0291	10.0000 Chemical and fertilizer mineral	147
2.0502 Sugar crops	0133, *0191, *0219, *0259, *0291	CONSTRUCTION	
2.0503 Miscellaneous crops	*0119, *0139, *0191, 0219, *0219, *0259, *0291	11 New construction:	
2.0600 Oil bearing crops	0116, *0119, *013, *0173, *0219, *0259, *0291	11.0101 Residential 1-unit structures, nonfarm	*15, *17, 6552
2.0701 Forest products	*018, *0191, *0219, *0259, *0291	11.0102 Residential 2-4 unit structures, nonfarm	*15-17
2.0702 Greenhouse and nursery products	*018, *0191, *0219, *0259, *0291	11.0103 Residential garden apartments	*15-17, 6552
3 Forestry and fishery products :		11.0104 Residential high-rise apartments	*15-17
3.0001 Forestry products	081-4, 097	11.0105 Residential additions and alterations, nonfarm	*15-17
3.0002 Commercial fishing	091	11.0106 Hotels and motels	*15-17
4 Agricultural, forestry, and fishery services:		11.0107 Dormitories and other group housing	*15-17
4.0001 Agricultural, forestry, and fishery services	0254, 07 (excl. 074, and 078), 085, 092, *0279	11.0201 Industrial buildings	*15-17
4.0002 Landscape and horticultural services	078	11.0202 Office buildings	*15-17
MINING		11.0203 Warehouses	*15-17
5 Iron and ferroalloy ores mining:		11.0204 Garages and service stations	*15-17
5.0000 Iron and ferroalloy ores	101, 106	11.0205 Stores and restaurants	*15-17
		11.0206 Religious buildings	*15-17
		11.0207 Educational buildings	*15-17
		11.0231 Hospitals	*15-17
		11.0232 Residential institutions and other health related facilities.	*15-17
		11.0241 Amusement and recreation buildings	*15-17
		11.0250 Other nonfarm buildings	*15-17
		11.0301 Telephone and telegraph facilities	*16-17
		11.0302 Railroads	*16-17
		11.0303 Electric utility facilities	*16-17
		11.0304 Gas utility facilities	*16-17
		11.0305 Petroleum pipelines	*16-17
		11.0306 Water supply facilities	*16-17
		11.0307 Sewer system facilities	*16-17
		11.0308 Local transit facilities	*16-17
		11.0400 Highways and streets	*16-17
		11.0501 Farm housing units and additions and alterations.	*15, *17
		11.0502 Farm service facilities	*15, *17
		11.0601 Petroleum and natural gas well drilling	*138
		11.0602 Petroleum, natural gas, and solid mineral exploration.	*108, *1112, *1213, *138, *148
		11.0603 Access structures for solid mineral development.	*108, *1112, *1213, *148
		11.0701 Military facilities	*15-17
		11.0702 Dams and reservoirs	*15-17
		11.0703 Other conservation and development facilities	*15-17
		11.0704 Other nonbuilding facilities	*15-17
		12 Maintenance and repair construction:	
		12.0100 Nonfarm residential structures	*15, *17
		12.0201 Other nonfarm buildings	*15-17
		12.0202 Farm residential buildings	*15, *17
		12.0203 Farm service facilities	*15, *17
		12.0204 Telephone and telegraph facilities	*16-17
		12.0205 Railroads	*16-17

Detailed Industries for Which Multipliers Are Available ¹—Continued

Industry number and title	Related 1972 SIC codes	Industry number and title	Related 1972 SIC codes
12.0206 Electric utility facilities	*16-17	17.0600 Coated fabrics, not rubberized	2295
12.0207 Gas utility facilities	*16-17	17.0700 Tire cord and fabric	2296
12.0208 Petroleum pipelines	*16-17	17.0900 Cordage and twine	2298
12.0209 Water supply facilities	*16-17	17.1001 Nonwoven fabrics	2297
12.0210 Sewer facilities	*16-17	17.1002 Textile goods, n.e.c.	2299
12.0211 Local transit facilities	*16-17		
12.0212 Military facilities	*15-17	18 Apparel :	
12.0213 Conservation and development facilities	*15-17	18.0101 Women's hosiery, except socks	2251
12.0214 Highways and streets	*16-17	18.0102 Hosiery, n.e.c.	2252
12.0215 Petroleum and natural gas wells	*138	18.0201 Knit outerwear mills	2253
12.0216 Other nonbuilding facilities	*15-17	18.0202 Knit underwear mills	2254
		18.0203 Knitting mills, n.e.c.	2259
		18.0300 Knit fabric mills	2257-8
		18.0400 Apparel made from purchased materials	231-8, *3999
MANUFACTURING			
13 Ordnance and accessories:		19 Miscellaneous fabricated textile products:	
13.0100 Guided missiles and space vehicles	3761	19.0100 Curtains and draperies	2391
13.0200 Ammunition, except for small arms, n.e.c.	3483	19.0200 Housefurnishings, n.e.c.	2392
13.0300 Tanks and tank components	3795	19.0301 Textile bags	2393
13.0500 Small arms	3484	19.0302 Canvas and related products	2394
13.0600 Small arms ammunition	3482	19.0303 Pleating and stitching	2395
13.0700 Other ordnance and accessories	3489	19.0304 Automotive and apparel trimmings	2396
		19.0305 Schiffli machine embroideries	2397
14 Food and kindred products:		19.0306 Fabricated textile products, n.e.c.	2399
14.0101 Meat packing plants	2011	20 Lumber and wood products, except containers:	
14.0102 Sausages and other prepared meats	2013	20.0100 Logging camps and logging contractors	2411
14.0103 Poultry dressing plants	2016	20.0500 Sawmills and planing mills, hardwood	2421, 2426, 2429
14.0104 Poultry and egg processing	2017	dimension and flooring mills.	
14.0250 Creamery butter and cheese	2021-2	20.0501 Millwork	2431
14.0400 Condensed and evaporated milk	2023	20.0502 Wood kitchen cabinets	2434
14.0500 Ice cream and frozen desserts	2024	20.0600 Veneer and plywood	2435-6
14.0600 Fluid milk	2026	20.0701 Structural wood members, n.e.c.	2439
14.0700 Canned and cured seafoods	2091	20.0702 Prefabricated wood buildings	2452
14.0800 Canned specialties	2032	20.0800 Wood preserving	2491
14.0900 Canned fruits and vegetables	2033	20.0901 Wood pallets and skids	2448
14.1000 Dehydrated food products	2034	20.0902 Particleboard	2492
14.1100 Pickles, sauces, and salad dressings	2035	20.0903 Wood products, n.e.c.	2499
14.1200 Fresh or frozen packaged fish	2092		
14.1301 Frozen fruits, fruit juices and vegetables	2037	21 Wood containers:	
14.1302 Frozen specialties	2038	21.0000 Wood containers	2441, 2449
14.1401 Flour and other grain mill products	2041		
14.1402 Cereal breakfast foods	2043	22 Household furniture :	
14.1403 Blended and prepared flour	2045	22.0101 Wood household furniture	2511
14.1501 Dog, cat, and other pet food	2047	22.0102 Household furniture, n.e.c.	2519
14.1502 Prepared feeds, n.e.c.	2048	22.0103 Wood TV and radio cabinets	2517
14.1600 Rice milling	2044	22.0200 Upholstered household furniture	2512
14.1700 Wet corn milling	2046	22.0300 Metal household furniture	2514
14.1801 Bread, cake, and related products	2051, 5462	22.0400 Mattresses and bedsprings	2515
14.1802 Cookies and crackers	2052		
14.1900 Sugar	2061-3	23 Other furniture and fixtures:	
14.2001 Confectionery products	2065	23.0100 Wood office furniture	2521
14.2002 Chocolate and cocoa products	2066	23.0200 Metal office furniture	2522
14.2003 Chewing gum	2067	23.0300 Public building furniture	2531
14.2101 Malt beverages	2082	23.0400 Wood partitions and fixtures	2541
14.2102 Malt	2083	23.0500 Metal partitions and fixtures	2542
14.2103 Wines, brandy, and brandy spirits	2084	23.0600 Drapery hardware and blinds and shades	2591
14.2104 Distilled liquor, except brandy	2085	23.0700 Furniture and fixtures, n.e.c.	2599
14.2200 Bottled and canned soft drinks	2086		
14.2300 Flavoring extracts and syrups, n.e.c.	2087	24 Paper and allied products, except containers:	
14.2400 Cottonseed oil mills	2074	24.0100 Pulp mills	261
14.2500 Soybean oil mills	2075	24.0200 Paper mills, except building paper	262
14.2600 Vegetable oil mills, n.e.c.	2076	24.0300 Paperboard mills	263
14.2700 Animal and marine fats and oils	2077	24.0400 Envelopes	2642
14.2800 Roasted coffee	2095	24.0500 Sanitary paper products	2647
14.2900 Shortening and cooking oils	2079	24.0602 Building paper and board mills	266
14.3000 Manufactured ice	2097	24.0701 Paper coating and glazing	2641
14.3100 Macaroni and spaghetti	2098	24.0702 Bags, except textile	2643
14.3200 Food preparations, n.e.c.	2099	24.0703 Die-cut paper and board	2645
		24.0704 Pressed and molded pulp goods	2646
15 Tobacco manufactures:		24.0705 Stationery products	2648
15.0101 Cigarettes	211	24.0706 Converted paper products, n.e.c.	2649
15.0102 Cigars	212		
15.0103 Chewing and smoking tobacco	213	25 Paperboard containers and boxes:	
15.0200 Tobacco stemming and redrying	214	25.0000 Paperboard containers and boxes	265
16 Broad and narrow fabrics, yarn and thread mills :		26 Printing and publishing:	
16.0100 Broadwoven fabric mills and fabric finishing	221-3, 2261-2	26.0100 Newspapers	271
plants.		26.0200 Periodicals	272
16.0200 Narrow fabric mills	224	26.0301 Book publishing	2731
16.0300 Yarn mills and finishing of textiles, n.e.c.	2269, 2281-3	26.0302 Book printing	2732
16.0400 Thread mills	2284	26.0400 Miscellaneous publishing	274
17 Miscellaneous textile goods and floor coverings :		26.0501 Commercial printing	2751-2, 2754
17.0100 Floor coverings	227	26.0502 Lithographic platemaking and services	2795
17.0200 Felt goods, n.e.c.	2291	26.0601 Manifold business forms	276
17.0300 Lace goods	2292	26.0602 Blankbooks and looseleaf binders	2782
17.0400 Padding and upholstery filling	2293	26.0700 Greeting card publishing	277
17.0500 Processed textile waste	2294	26.0801 Engraving and plate printing	2753

Detailed Industries for Which Multipliers Are Available ¹—Continued

Industry number and title	Related 1972 SIC codes	Industry number and title	Related 1972 SIC codes
26.0802 Bookbinding and related work	2789	36.1700 Asbestos products	3292
26.0803 Typesetting	2791	36.1800 Gaskets, packing and sealing devices	3293
26.0804 Photoengraving, electrotyping and stereotyping.	2793, 2794	36.1900 Minerals, ground or treated	3295
27 Chemicals and selected chemical products:		36.2000 Mineral wool	3296
27.0101 Alkalies and chlorine	2812	36.2100 Nonclay refractories	3297
27.0102 Industrial gases	2813	36.2200 Nonmetallic mineral products, n.e.c.	3299
27.0103 Inorganic pigments	2816	37 Primary iron and steel manufacturing:	
27.0104 Industrial inorganic chemicals, n.e.c.	*2819	37.0101 Blast furnaces and steel mills	3312
27.0105 Cyclic crudes, intermediates, and industrial organic chemicals.	286	37.0102 Electrometallurgical products	3313
27.0201 Nitrogenous and phosphatic fertilizers	2873-4	37.0103 Steel wire and related products	3315
27.0202 Fertilizers, mixing only	2875	37.0104 Cold finishing of steel shapes	3316
27.0300 Agricultural chemicals, n.e.c.	2879	37.0105 Steel pipe and tubes	3317
27.0401 Gum and wood chemicals	2861	37.0200 Iron and steel foundries	332
27.0402 Adhesives and sealants	2891	37.0300 Iron and steel forgings	3462
27.0403 Explosives	2892	37.0401 Metal heat treating	3398
27.0404 Printing ink	2893	37.0402 Primary metal products, n.e.c.	3399
27.0405 Carbon black	2895	38 Primary nonferrous metals manufacturing:	
27.0406 Chemical preparations, n.e.c.	2899	38.0100 Primary copper	3331
28 Plastics and synthetic materials:		38.0200 Primary lead	3332
28.0100 Plastics materials and resins	2821	38.0300 Primary zinc	3333
28.0200 Synthetic rubber	2822	38.0400 Primary aluminum	*2819, 3334
28.0300 Cellulosic manmade fibers	2823	38.0500 Primary nonferrous metals, n.e.c.	3339
28.0400 Organic fibers, noncellulosic	2824	38.0600 Secondary nonferrous metals	334
29 Drugs, cleaning and toilet preparations:		38.0700 Copper rolling and drawing	3351
29.0100 Drugs	283	38.0800 Aluminum rolling and drawing	3353-5
29.0201 Soap and other detergents	2841	38.0900 Nonferrous rolling and drawing, n.e.c.	3356
29.0202 Polishes and sanitation goods	2842	38.1000 Nonferrous wire drawing and insulating	3357
29.0203 Surface active agents	2843	38.1100 Aluminum castings	3361
29.0300 Toilet preparations	2844	38.1200 Brass, bronze, and copper castings	3362
30 Paints and allied products:		38.1300 Nonferrous castings, n.e.c.	3369
30.0000 Paints and allied products	285	38.1400 Nonferrous forgings	3463
31 Petroleum refining and related products:		39 Metal containers:	
31.0101 Petroleum refining	291	39.0100 Metal cans	3411
31.0102 Lubricating oils and greases	2992	39.0200 Metal barrels, drums, and pails	3412
31.0103 Products of petroleum and coal, n.e.c.	2999	40 Heating, plumbing, and fabricated structural metal products:	
31.0200 Paving mixtures and blocks	2951	40.0100 Metal sanitary ware	3431
31.0300 Asphalt felts and coatings	2952	40.0200 Plumbing fixture fittings and trim	3432
32 Rubber and miscellaneous plastics products:		40.0300 Heating equipment, except electric	3433
32.0100 Tires and inner tubes	301	40.0400 Fabricated structural metal	3441
32.0200 Rubber and plastics footwear	302	40.0500 Metal doors, sash, and trim	3442
32.0301 Reclaimed rubber	303	40.0600 Fabricated plate work (boiler shops)	3443
32.0302 Fabricated rubber products, n.e.c.	306	40.0700 Sheet metal work	3444
32.0400 Miscellaneous plastics products	307	40.0800 Architectural metal work	3446
32.0500 Rubber and plastics hose and belting	304	40.0901 Prefabricated metal buildings	3448
33 Leather tanning and finishing:		40.0902 Miscellaneous metal work	3449
33.0001 Leather tanning and finishing	311	41 Screw machine products and stampings:	
34 Footwear and other leather products:		41.0100 Screw machine products and bolts, nuts, rivets, and washers.	345
34.0100 Boot and shoe cutstock and findings	313	41.0201 Automotive stampings	3465
34.0201 Shoes, except rubber	3143-9	41.0202 Crowns and closures	3466
34.0202 House slippers	3142	41.0203 Metal stampings, n.e.c.	3469
34.0301 Leather gloves and mittens	315	42 Other fabricated metal products:	
34.0302 Luggage	316	42.0100 Cutlery	3421
34.0303 Women's handbags and purses	3171	42.0201 Hand and edge tools, n.e.c.	3423
34.0304 Personal leather goods	3172	42.0202 Hand saws and saw blades	3425
34.0305 Leather goods, n.e.c.	319	42.0300 Hardware, n.e.c.	3429
35 Glass and glass products:		42.0401 Plating and polishing	3471
35.0100 Glass and glass products, except containers .	321, 3229, 323	42.0402 Metal coating and allied services	3479
35.0200 Glass containers	3221	42.0500 Miscellaneous fabricated wire products	3495-6
36 Stone and clay products:		42.0700 Steel springs, except wire	3493
36.0100 Cement, hydraulic	324	42.0800 Pipe, valves, and pipe fittings	3494, 3498
36.0200 Brick and structural clay tile	3251	42.1000 Metal foil and leaf	3497
36.0300 Ceramic wall and floor tile	3253	42.1100 Fabricated metal products, n.e.c.	3499
36.0400 Clay refractories	3255	43 Engines and turbines:	
36.0500 Structural clay products, n.e.c.	3259	43.0100 Turbines and turbine generator sets	3511
36.0600 Vitreous plumbing fixtures	3261	43.0200 Internal combustion engines, n.e.c.	3519
36.0701 Vitreous china food utensils	3262	44 Farm and garden machinery:	
36.0702 Fine earthenware food utensils	3263	44.0001 Farm machinery and equipment	3523
36.0800 Porcelain electrical supplies	3264	44.0002 Lawn and garden equipment	3524
36.0900 Pottery products, n.e.c.	3269	45 Construction and mining machinery:	
36.1000 Concrete block and brick	3271	45.0100 Construction machinery and equipment	3531
36.1100 Concrete products, n.e.c.	3272	45.0200 Mining machinery, except oil field	3532
36.1200 Ready-mixed concrete	3273	45.0300 Oil field machinery	3533
36.1300 Lime	3274	46 Materials handling machinery and equipment:	
36.1400 Gypsum products	3275	46.0100 Elevators and moving stairways	3534
36.1500 Cutstone and stone products	328	46.0200 Conveyors and conveying equipment	3535
36.1600 Abrasive products	3291	46.0300 Hoists, cranes, and monorails	3536

Detailed Industries for Which Multipliers Are Available ¹—Continued

Industry number and title	Related 1972 SIC codes	Industry number and title	Related 1972 SIC codes
46.0400 Industrial trucks and tractors	3537	59.0200 Truck trailers	3715
47 Metalworking machinery and equipment:		59.0301 Motor vehicles and car bodies	3711
47.0100 Machine tools, metal cutting types	3541	59.0302 Motor vehicle parts and accessories	3714
47.0200 Machine tools, metal forming types	3542	60 Aircraft and parts:	
47.0300 Special dies and tools and machine tool accessories.	3544-5	60.0100 Aircraft	3721
47.0401 Power driven hand tools	3546	60.0200 Aircraft and missile engines and engine parts	3724, 3764
47.0402 Rolling mill machinery	3547	60.0400 Aircraft and missile equipment, n.e.c	3728, 3769
47.0403 Metalworking machinery, n.e.c	3549	61 Other transportation equipment:	
48 Special industry machinery and equipment:		61.0100 Ship building and repairing	3731
48.0100 Food products machinery	3551	61.0200 Boat building and repairing	3732
48.0200 Textile machinery	3552	61.0300 Railroad equipment	374
48.0300 Woodworking machinery	3553	61.0500 Motorcycles, bicycles, and parts	375
48.0400 Paper industries machinery	3554	61.0601 Travel trailers and campers	3792
48.0500 Printing trades machinery	3555	61.0602 Mobile homes	2451
48.0600 Special industry machinery, n.e.c	3559	61.0603 Motor homes (made on purchased chassis) ...	3716
49 General industrial machinery and equipment:		61.0700 Transportation equipment, n.e.c	3799
49.0100 Pumps and compressors	3561, 3563	62 Scientific and controlling instruments:	
49.0200 Ball and roller bearings	3562	62.0100 Engineering and scientific instruments	3811
49.0300 Blowers and fans	3564	62.0200 Mechanical measuring devices	3823-4, 3829
49.0400 Industrial patterns	3565	62.0300 Environmental controls	3822
49.0500 Power transmission equipment	3566, 3568	62.0400 Surgical and medical instruments	3841
49.0600 Industrial furnaces and ovens	3567	62.0500 Surgical appliances and supplies	3842
49.0700 General industrial machinery, n.e.c	3569	62.0600 Dental equipment and supplies	3843
50 Miscellaneous machinery, except electrical:		62.0700 Watches, clocks, and parts	387
50.0001 Carburetors, pistons, rings, and valves	3592	63 Optical, ophthalmic, and photographic equipment:	
50.0002 Machinery, except electrical, n.e.c	3599	63.0100 Optical instruments and lenses	383
51 Office, computing, and accounting machines:		63.0200 Ophthalmic goods	385
51.0101 Electronic computing equipment	3573	63.0300 Photographic equipment and supplies	386
51.0102 Calculating and accounting machines	3574	64 Miscellaneous manufacturing:	
51.0300 Scales and balances	3576	64.0101 Jewelry, precious metal	3911
51.0400 Typewriters and office machines, n.e.c	3572, 3579	64.0102 Jewelers' materials and lapidary work	3915
52 Service industry machines:		64.0104 Silverware and plated ware	3914
52.0100 Automatic merchandising machines	3581	64.0105 Costume jewelry	3961
52.0200 Commercial laundry equipment	3582	64.0200 Musical instruments	393
52.0300 Refrigeration and heating equipment	3585	64.0301 Games, toys, and children's vehicles	3944
52.0400 Measuring and dispensing pumps	3586	64.0302 Dolls	3942
52.0500 Service industry machines, n.e.c	3589	64.0400 Sporting and athletic goods, n.e.c	3949
53 Electric industrial equipment and apparatus:		64.0501 Pens and mechanical pencils	3951
53.0100 Instruments to measure electricity	3825	64.0502 Lead pencils and art goods	3952
53.0200 Transformers	3612	64.0503 Marking devices	3953
53.0300 Switchgear and switchboard apparatus	3613	64.0504 Carbon paper and inked ribbons	3955
53.0400 Motors and generators	3621	64.0600 Artificial trees and flowers	3962
53.0500 Industrial controls	3622	64.0701 Buttons	3963
53.0600 Welding apparatus, electric	3623	64.0702 Needles, pins, and fasteners	3964
53.0700 Carbon and graphite products	3624	64.0800 Brooms and brushes	3991
53.0800 Electrical industrial apparatus, n.e.c	3629	64.0900 Hard surface floor coverings	3996
54 Household appliances:		64.1000 Burial caskets and vaults	3995
54.0100 Household cooking equipment	3631	64.1100 Signs and advertising displays	3993
54.0200 Household refrigerators and freezers	3632	64.1200 Manufacturing industries, n.e.c	*3999
54.0300 Household laundry equipment	3633	TRANSPORTATION AND PUBLIC UTILITIES	
54.0400 Electric housewares and fans	3634	65 Transportation and warehousing:	
54.0500 Household vacuum cleaners	3635	65.0100 Railroads and related services	40, 474, *4789
54.0600 Sewing machines	3636	65.0200 Local and suburban transit and interurban highways passenger transportation.	41
54.0700 Household appliances, n.e.c	3639	65.0300 Motor freight transportation and warehousing ..	42, *4789
55 Electric lighting and wiring equipment:		65.0400 Water transportation	44
55.0100 Electric lamps	3641	65.0500 Air transportation	45
55.0200 Lighting fixtures and equipment	3645-8	65.0600 Pipelines, except natural gas	46
55.0300 Wiring devices	3643-4	65.0701 Freight forwarders and other transportation services.	471, 4723, *478
56 Radio, TV, and communication equipment:		65.0702 Arrangement of passenger transportation	4722
56.0100 Radio and TV receiving sets	3651	66 Communications, except radio and TV:	
56.0200 Phonograph records and tapes	3652	66.0000 Communications, except radio and TV	48 (excl. 483)
56.0300 Telephone and telegraph apparatus	3661	67 Radio and TV broadcasting:	
56.0400 Radio and TV communication equipment	3662	67.0000 Radio and TV broadcasting	483
57 Electronic components and accessories:		68 Electric, gas, water, and sanitary services:	
57.0100 Electron tubes	3671-3	68.0100 Electric services (utilities)	491, *493
57.0200 Semiconductors and related devices	3674	68.0200 Gas production and distribution (utilities)	492, *493
57.0300 Other electronic components	3675-9	68.0301 Water supply and sewerage systems	494, 4952
58 Miscellaneous electrical machinery and supplies:		68.0302 Sanitary services, steam supply, and irrigation systems.	495 (excl. 4952), 496-7, *493
58.0100 Storage batteries	3691	WHOLESALE AND RETAIL TRADE	
58.0200 Primary batteries, dry and wet	3692	69 Wholesale and retail trade:	
58.0300 X-ray apparatus and tubes	3693	69.0100 Wholesale trade	50, 51
58.0400 Engine electrical equipment	3694	69.0200 Retail trade, except eating and drinking	52-7 (excl. 5462), 59, 7396, 8042
58.0500 Electrical equipment and supplies, n.e.c	3699		
59 Motor vehicles and equipment:			
59.0100 Truck and bus bodies	3713		

Detailed Industries for Which Multipliers Are Available ¹—Continued

Industry number and title	Related 1972 SIC codes	Industry number and title	Related 1972 SIC codes
FINANCE, INSURANCE, AND REAL ESTATE		75.0003 Automobile parking and car washes	752, 7542
70 Finance and insurance:		76 Amusements:	
70.0150 Banking and credit agencies	60, 61, 67 (excl. 6732)	76.0100 Motion pictures	78
70.0300 Security and commodity brokers	62	76.0201 Theatrical producers (except motion pictures), bands, and entertainers.	792
70.0400 Insurance carriers	63	76.0202 Bowling alleys, billiard and pool establishments.	793
70.0500 Insurance agents, brokers, and services	64	76.0203 Commercial sports, except racing	7941
71 Real estate and rental:		76.0204 Racing (including track operations)	7948
71.0100 Owner-occupied dwellings		76.0205 Membership sports and recreation clubs	7997
71.0201 Real estate	65-6, (excl. 6552)	76.0206 Other amusement and recreation services	791, 799 (excl. 7997)
71.0202 Royalties			
SERVICES		77 Health, educational, and social services and nonprofit organizations:	
72 Hotels; personal and repair services (except auto):		77.0100 Doctors and dentists	801-3, 8041
72.0100 Hotels and lodging places	70	77.0200 Hospitals	806
72.0201 Laundry, cleaning, garment services, and shoe repair.	721, 725	77.0301 Nursing and personal care facilities	805
72.0202 Funeral service and crematories	726	77.0302 Other medical and health services, including veterinarians.	074, 8049, 807-9
72.0203 Portrait, photographic studios, and other miscellaneous personal services.	722, 729	77.0401 Elementary and secondary schools	821
72.0204 Electrical repair shops	762	77.0402 Colleges, universities, and professional schools.	822
72.0205 Watch, clock, jewelry, and furniture repair	763-4	77.0403 Libraries, correspondence and vocational schools, and educational services, n.e.c.	823-9
72.0300 Beauty and barber shops	723-4	77.0501 Business associations and professional membership organizations.	861-2
73 Business and professional services, except medical:		77.0502 Labor organizations and civic, social, and fraternal associations.	863-4
73.0101 Miscellaneous repair shops	769	77.0503 Religious organizations	866
73.0102 Services to dwellings and other buildings	734	77.0504 Other membership organizations	84, 865, 869, 8922, 6732
73.0103 Personnel supply services	736	77.0600 Job training and related services	8331
73.0104 Computer and data processing services	737	77.0700 Child day care services	8351
73.0105 Management and consulting services, testing and research labs.	7391-2, 7397	77.0800 Residential care	8361
73.0106 Detective and protective services	7393	77.0900 Social services, n.e.c.	8321, 8399
73.0107 Equipment rental and leasing services	7394		
73.0108 Photofinishing labs, photocopy, and commercial photography.	7332-3, 7395	GOVERNMENT ENTERPRISES	
73.0109 Other business services	732, 7331, 7339, 735, 7399	78 Federal Government enterprises:	
73.0200 Advertising	731	78.0100 U.S. Postal Service	(²)
73.0301 Legal services	811	78.0200 Federal electric utilities	(²)
73.0302 Engineering, architectural, and surveying services.	8911	78.0300 Commodity Credit Corporation	(²)
73.0303 Accounting, auditing and bookkeeping, and miscellaneous services, n.e.c.	893, 899	78.0400 Other Federal Government enterprises	(²)
74 Eating and drinking places:		79 State and local government enterprises:	
74.0000 Eating and drinking places	58	79.0000 State and local government enterprises	(²)
75 Automobile repair and services:		SPECIAL INDUSTRIES	
75.0001 Automotive rental and leasing, without drivers	751	91 Household industry:	
75.0002 Automotive repair shops and services	753, 7549	91.0000 Household industry	(³)

1. The I-O industry classification shown in this appendix defines the industry data shown in the 1982 I-O accounts. A comparable commodity classification is not shown. However, the commodity titles used in the I-O tables are the same as the industry titles and, for the most part, the commodity output for the I-O industry is consistent with the primary product of the related SIC. Where the same commodity is the primary product of more than one SIC, the

I-O accounts group the commodity as output of the I-O industry that is the largest producer.

2. Although the SIC assigns the same codes to activities of both private firms and government agencies, SIC codes in the I-O accounts are used only for classifying private activities.

3. Industry output is defined as the compensation of domestic household workers.

Appendix III

Industry Aggregations for Which Multipliers Are Available

Numerical designation of industry aggregation	Industry aggregation	Numerical designation of component detailed industries ¹
	Agriculture, forestry, and fisheries:	
1	Agricultural products and agricultural, forestry, and fishery services	1.0100-2.0702, 4.0001-4.0002
2	Forestry and fishery products	3.0001-3.0002
	Mining:	
3	Coal mining	7.0000
4	Crude petroleum and natural gas	8.0000
5	Miscellaneous mining	5.0000, 6.0100-6.0200, 9.0001-9.0004, 10.0000
	Construction:	
6	New construction	11.0101-11.0704
7	Maintenance and repair construction	12.0100-12.0216
	Manufacturing:	
8	Food and kindred products and tobacco	14.0101-15.0200
9	Textile mill products	16.0100-18.0300
10	Apparel	18.0400-19.0306
11	Paper and allied products	24.0100-25.0000
12	Printing and publishing	26.0100-26.0804
13	Chemicals and petroleum refining	27.0101-31.0300
14	Rubber and leather products	32.0100-34.0305
15	Lumber and wood products and furniture	20.0100-23.0700
16	Stone, clay, and glass products	35.0100-36.2200
17	Primary metal industries	37.0101-38.1400
18	Fabricated metal products	13.0200, 13.0500-13.0700, 39.0100-42.1100
19	Machinery, except electrical	43.0100-52.0500
20	Electric and electronic equipment	53.0100-58.0500
21	Motor vehicles and equipment	59.0100-59.0302
22	Transportation equipment, except motor vehicles	13.0100, 13.0300, 60.0100-61.0700
23	Instruments and related products	62.0100-63.0300
24	Miscellaneous manufacturing industries	64.0101-64.1200
	Transportation and public utilities: *	
25	Transportation	65.0100-65.0702, 78.0100
26	Communication	66.0000-67.0000
27	Electric, gas, water, and sanitary services	68.0100-68.0302, 78.0200
	Wholesale and retail trade:	
28	Wholesale trade	69.0100
29	Retail trade	69.0200
	Finance, insurance, and real estate:	
30	Finance	70.0150-70.0300
31	Insurance	70.0400-70.0500
32	Real estate	71.0100-71.0201
	Services:	
33	Hotels and lodging places and amusements	72.0100, 76.0100-76.0206
34	Personal services	72.0201-72.0300
35	Business services	73.0101-73.0303
36	Eating and drinking places	74.0000
37	Health services	77.0100-77.0302
38	Miscellaneous services	75.0001-75.0003, 77.0401-77.0900, 79.0000, 78.0400
39	Households	91.0000

* Includes Federal Government enterprises.

1. Appendix II identifies these industries.

STATISTICAL SECTION

- **Summary Table for All States**
- **Sample Tables for California**

Alabama

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.3032	0.4568	27.4	2.9751	2.5489
Forestry and fishery products	1.7525	.2709	15.1	3.6714	3.2745
Mining:					
Coal mining	1.9630	.5460	19.6	2.0302	3.1184
Crude petroleum and natural gas	1.4876	.2034	8.9	2.0678	2.6182
Miscellaneous mining	1.8651	.5262	23.6	1.8890	2.1739
Construction:					
New construction	2.3374	.7337	39.3	2.3690	2.1852
Maintenance and repair construction	2.2145	.8059	42.0	1.8296	1.8689
Manufacturing:					
Food and kindred products and tobacco	2.4004	.4595	25.9	3.4416	3.2597
Textile mill products	2.6559	.6178	32.3	2.9478	2.8634
Apparel	2.5612	.6751	44.7	2.5689	2.0621
Paper and allied products	2.3189	.5259	21.9	2.8610	4.4745
Printing and publishing	2.0816	.6160	30.9	1.9952	2.0127
Chemicals and petroleum refining	1.8681	.3520	14.4	2.8209	3.9878
Rubber and leather products	2.0268	.4955	21.3	2.2824	2.8626
Lumber and wood products and furniture	2.5097	.6147	34.5	2.7457	2.5606
Stone, clay, and glass products	2.2212	.6072	29.9	2.3132	2.3235
Primary metal industries	2.2159	.5895	24.6	2.5032	3.1776
Fabricated metal products	2.2513	.6263	29.2	2.3869	2.5082
Machinery, except electrical	2.1994	.6581	30.1	2.2171	2.4718
Electric and electronic equipment	2.1782	.6478	29.3	2.1875	2.4744
Motor vehicles and equipment	2.3360	.6150	27.2	2.6312	3.1268
Transportation equipment, except motor vehicles	2.1980	.6556	28.8	2.1891	2.6516
Instruments and related products	2.0354	.6464	30.6	1.9141	2.0823
Miscellaneous manufacturing industries	2.1967	.5785	30.2	2.4417	2.3584
Transportation and public utilities:*					
Transportation	2.1004	.7640	35.9	1.8579	2.0782
Communication	1.6199	.4889	19.8	1.6535	2.1665
Electric, gas, water, and sanitary services	1.9361	.3381	13.6	3.6483	5.5118
Wholesale and retail trade:					
Wholesale trade	1.7962	.6557	29.9	1.5936	1.8384
Retail trade	2.0236	.7923	53.8	1.6273	1.4623
Finance, insurance, and real estate:					
Finance	1.9893	.7036	35.0	1.8506	1.9655
Insurance	2.2644	.8315	38.0	2.0198	2.3487
Real estate	1.2200	.0820	4.5	5.0869	4.3073
Services:					
Hotels and lodging places and amusements	1.8826	.5641	46.8	1.8489	1.4321
Personal services	2.0166	.7816	63.0	1.6500	1.3784
Business services	1.9889	.8507	37.4	1.5988	1.8561
Eating and drinking places	2.0856	.6055	53.2	1.9352	1.4240
Health services	2.0428	.9136	41.3	1.5155	1.7144
Miscellaneous services	2.1086	.6659	42.3	1.9880	1.7168
Households	1.1455	.3492	20.5		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Alaska

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	1.6915	0.4332	26.0	1.5775	1.3425
Forestry and fishery products	1.6824	.3581	15.8	1.7090	1.5489
Mining:					
Coal mining	1.5294	.3812	8.4	1.5034	2.2392
Crude petroleum and natural gas	1.4153	.1632	4.0	1.7595	2.7792
Miscellaneous mining	1.7724	.5103	13.9	1.5296	1.9695
Construction:					
New construction	1.4639	.3874	10.0	1.5239	2.1170
Maintenance and repair construction	1.5980	.5912	16.9	1.3822	1.6921
Manufacturing:					
Food and kindred products and tobacco	1.7560	.3272	14.1	2.2369	2.1834
Textile mill products	1.4672	.3796	19.0	1.5101	1.3728
Apparel	1.3435	.3439	26.1	1.3874	1.1836
Paper and allied products	1.9397	.3391	9.7	2.1194	2.6418
Printing and publishing	1.5896	.4663	20.7	1.5123	1.4441
Chemicals and petroleum refining	1.9847	.1806	4.8	4.4864	6.5603
Rubber and leather products	1.4235	.3317	17.2	1.4716	1.3192
Lumber and wood products and furniture	1.4539	.2562	7.8	1.6557	2.0157
Stone, clay, and glass products	1.6050	.3733	15.0	1.7333	1.6245
Primary metal industries	1.5412	.3243	10.6	1.7151	1.8386
Fabricated metal products	1.5059	.4184	18.3	1.5033	1.4439
Machinery, except electrical	1.3963	.3710	13.9	1.4266	1.4799
Electric and electronic equipment	1.4620	.4031	13.1	1.4730	1.6496
Motor vehicles and equipment	1.3756	.3344	11.3	1.4452	1.6199
Transportation equipment, except motor vehicles	1.4397	.4067	13.6	1.4104	1.5382
Instruments and related products	1.5377	.5179	15.4	1.3725	1.6108
Miscellaneous manufacturing industries	1.4010	.2998	15.3	1.5992	1.4184
Transportation and public utilities: *					
Transportation	1.8973	.4744	15.4	1.8459	2.0317
Communication	1.4221	.3978	12.3	1.4267	1.6668
Electric, gas, water, and sanitary services	1.8100	.2225	5.1	2.7893	5.7519
Wholesale and retail trade:					
Wholesale trade	1.5800	.5463	18.2	1.4082	1.5860
Retail trade	1.7495	.6559	31.4	1.4287	1.3591
Finance, insurance, and real estate:					
Finance	1.7622	.6179	31.1	1.5718	1.4484
Insurance	1.8538	.6819	22.5	1.6249	1.8664
Real estate	1.1384	.0533	2.1	3.9709	3.1000
Services:					
Hotels and lodging places and amusements	1.6589	.4775	27.8	1.5705	1.3284
Personal services	1.6351	.6419	32.5	1.3660	1.2934
Business services	1.7002	.7250	25.5	1.4012	1.5178
Eating and drinking places	1.5499	.4418	25.7	1.4976	1.3110
Health services	1.6760	.7417	26.9	1.3139	1.3883
Miscellaneous services	1.6554	.5365	25.2	1.5006	1.4072
Households .....	.8186	.2222	10.1		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Arizona

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	1.9799	0.4828	24.5	2.2508	2.2321
Forestry and fishery products	1.7197	.2251	11.4	13.2591	12.1966
Mining:					
Coal mining	1.7147	.4799	16.3	1.7896	2.5692
Crude petroleum and natural gas	1.4695	.2033	8.6	2.0730	2.6342
Miscellaneous mining	2.4518	.8130	31.8	2.1582	2.8335
Construction:					
New construction	2.1155	.6780	30.7	2.2255	2.6069
Maintenance and repair construction	1.9714	.7470	35.7	1.7127	1.8101
Manufacturing:					
Food and kindred products and tobacco	2.0450	.4066	19.8	3.2218	3.3780
Textile mill products	1.5978	.3654	20.0	1.9368	1.8259
Apparel	1.5869	.4434	29.1	1.7152	1.5042
Paper and allied products	1.5923	.3814	15.8	1.8748	2.2574
Printing and publishing	1.8286	.5780	28.0	1.8400	1.9098
Chemicals and petroleum refining	1.5727	.3393	15.4	2.1579	2.3913
Rubber and leather products	1.6079	.4394	21.9	1.7550	1.7602
Lumber and wood products and furniture	1.8577	.5158	28.1	2.0162	1.9050
Stone, clay, and glass products	2.0310	.5544	25.7	2.3126	2.3830
Primary metal industries	2.3914	.5195	20.9	3.9260	4.7172
Fabricated metal products	1.8347	.4958	22.5	1.9876	2.1123
Machinery, except electrical	2.0708	.6308	23.4	2.1732	3.0265
Electric and electronic equipment	2.3141	.7801	31.0	2.1753	2.7084
Motor vehicles and equipment	1.5927	.3330	14.1	2.2781	2.6361
Transportation equipment, except motor vehicles	2.0593	.6559	24.4	2.0742	2.7936
Instruments and related products	1.9207	.6464	25.0	1.8417	2.3519
Miscellaneous manufacturing industries	1.8385	.5002	25.1	2.0881	2.0619
Transportation and public utilities:*					
Transportation	1.8704	.6996	31.2	1.6887	1.8904
Communication	1.6363	.4987	20.4	1.6910	2.0764
Electric, gas, water, and sanitary services	1.6091	.2570	9.8	2.9030	4.3034
Wholesale and retail trade:					
Wholesale trade	1.7983	.6663	28.6	1.6239	1.9104
Retail trade	2.0280	.8017	48.5	1.6515	1.5340
Finance, insurance, and real estate:					
Finance	2.0448	.7203	31.3	1.9420	2.3217
Insurance	2.4725	.9264	42.8	2.1949	2.4375
Real estate	1.3474	.1272	6.4	4.9289	4.8211
Services:					
Hotels and lodging places and amusements	1.9119	.5934	39.2	1.8677	1.5730
Personal services	1.9521	.7926	52.2	1.6072	1.4292
Business services	2.0166	.8813	44.4	1.6195	1.6635
Eating and drinking places	1.8730	.5709	50.2	1.8300	1.3535
Health services	2.0239	.9177	38.5	1.5200	1.7403
Miscellaneous services	1.8614	.5397	30.2	1.9646	1.7932
Households	1.1107	.3489	18.9		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Arkansas

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.5644	0.4959	26.9	3.0973	3.2241
Forestry and fishery products	1.9460	.2310	13.4	12.6480	8.3056
Mining:					
Coal mining	1.6462	.4442	18.4	1.6560	2.2435
Crude petroleum and natural gas	1.4817	.1929	12.6	1.9662	1.7950
Miscellaneous mining	1.8894	.5250	25.9	1.7883	2.0538
Construction:					
New construction	2.1181	.6316	35.7	2.0793	2.1292
Maintenance and repair construction	2.1697	.7844	43.9	1.7438	1.8000
Manufacturing:					
Food and kindred products and tobacco	2.7693	.5047	27.9	4.1621	4.0161
Textile mill products	1.8177	.3754	20.0	2.2275	2.3390
Apparel	1.7641	.4796	38.0	1.8194	1.5739
Paper and allied products	2.1336	.4596	20.6	2.5437	3.5065
Printing and publishing	2.0867	.5795	32.3	2.0185	2.0030
Chemicals and petroleum refining	1.8585	.3128	14.7	2.7003	3.6799
Rubber and leather products	1.8080	.4744	25.3	1.8624	1.9537
Lumber and wood products and furniture	2.5615	.6329	35.7	2.6497	2.6738
Stone, clay, and glass products	2.1803	.5553	29.3	2.3102	2.3818
Primary metal industries	2.0463	.4849	22.9	2.3733	2.8562
Fabricated metal products	2.0627	.5611	28.0	2.0770	2.3018
Machinery, except electrical	2.0668	.5815	29.6	2.0847	2.2942
Electric and electronic equipment	2.1775	.6129	32.6	2.1860	2.2825
Motor vehicles and equipment	2.1113	.5395	30.0	2.2829	2.3075
Transportation equipment, except motor vehicles	1.9397	.5616	29.2	1.9082	2.0829
Instruments and related products	1.9291	.5445	27.9	1.9308	2.1314
Miscellaneous manufacturing industries	2.1621	.5653	34.6	2.3154	2.1137
Transportation and public utilities: *					
Transportation	2.0871	.7496	36.1	1.7674	2.0683
Communication	1.6038	.4730	19.6	1.6038	2.2309
Electric, gas, water, and sanitary services	1.8348	.2509	11.3	3.0182	4.8761
Wholesale and retail trade:					
Wholesale trade	1.8108	.6446	31.7	1.5709	1.8391
Retail trade	2.0395	.7760	54.6	1.5982	1.4882
Finance, insurance, and real estate:					
Finance	1.9265	.6524	33.6	1.7814	2.0232
Insurance	2.2334	.8309	40.8	1.9012	2.2281
Real estate	1.1930	.0713	4.3	4.5056	4.0019
Services:					
Hotels and lodging places and amusements	1.8384	.5325	50.2	1.7600	1.3835
Personal services	1.9983	.7523	56.4	1.6169	1.4530
Business services	1.9540	.8157	50.8	1.5356	1.5273
Eating and drinking places	2.1619	.6005	59.0	1.9243	1.3943
Health services	2.0526	.8918	44.1	1.4925	1.6806
Miscellaneous services	2.0901	.6550	45.3	1.8934	1.6795
Households	1.2057	.3467	21.8	.....	.....

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

California

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.1651	0.5702	26.0	2.1827	1.9745
Forestry and fishery products	2.1434	.4871	18.5	2.7860	2.8885
Mining:					
Coal mining	1.7751	.4862	18.4	1.8078	1.9082
Crude petroleum and natural gas	1.5933	.2296	7.5	2.3345	3.2647
Miscellaneous mining	2.0508	.5646	18.5	1.9823	2.5156
Construction:					
New construction	2.4756	.7531	26.5	2.5110	3.2799
Maintenance and repair construction	2.4028	.8335	31.1	1.9616	2.1781
Manufacturing:					
Food and kindred products and tobacco	2.2539	.4670	18.5	3.7452	3.8996
Textile mill products	1.7585	.3980	17.2	2.1441	2.0298
Apparel	1.9798	.5480	29.1	2.0760	1.7557
Paper and allied products	1.8556	.4251	15.3	2.1695	2.4467
Printing and publishing	2.0732	.6162	24.3	2.0538	2.1226
Chemicals and petroleum refining	1.9657	.2453	8.3	4.6266	5.8464
Rubber and leather products	1.9497	.5079	21.3	2.0401	1.9441
Lumber and wood products and furniture	2.2309	.6149	25.8	2.3578	2.2547
Stone, clay, and glass products	2.2761	.6050	23.0	2.3481	2.4216
Primary metal industries	2.0247	.5128	18.3	2.3028	2.5810
Fabricated metal products	2.1166	.5904	22.2	2.2017	2.3246
Machinery, except electrical	2.3437	.7001	23.7	2.3893	2.9065
Electric and electronic equipment	2.3937	.7695	25.9	2.2247	2.7070
Motor vehicles and equipment	1.8880	.4267	16.5	2.5791	2.6290
Transportation equipment, except motor vehicles	2.3522	.7307	23.8	2.2912	2.9224
Instruments and related products	2.2013	.6787	23.9	2.1340	2.4720
Miscellaneous manufacturing industries	2.2007	.5758	23.8	2.5602	2.4282
Transportation and public utilities: *					
Transportation	2.4307	.7846	28.9	2.0426	2.2543
Communication	1.9262	.5728	19.3	1.9370	2.4157
Electric, gas, water, and sanitary services	2.2757	.2790	9.2	3.9325	5.1316
Wholesale and retail trade:					
Wholesale trade	2.0632	.7276	25.5	1.7684	2.0908
Retail trade	2.3373	.8743	42.9	1.7958	1.6199
Finance, insurance, and real estate:					
Finance	2.5757	.9230	33.2	2.2136	2.6032
Insurance	2.8692	1.0354	37.4	2.4337	2.7944
Real estate	1.4301	.1490	5.8	5.4499	5.7892
Services:					
Hotels and lodging places and amusements	2.3442	.6555	27.8	2.4677	2.3947
Personal services	2.2431	.8323	45.4	1.7956	1.5119
Business services	2.3268	.9448	36.7	1.7711	1.8705
Eating and drinking places	2.3012	.6722	43.4	2.1484	1.5044
Health services	2.3697	.9937	34.9	1.6433	1.8638
Miscellaneous services	2.3142	.7189	34.2	2.0531	1.7914
Households	1.4345	.4200	18.2	.....	.....

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Colorado

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.5920	0.5017	27.2	3.4432	3.0114
Forestry and fishery products	1.7237	.2052	10.5	12.1877	9.4097
Mining:					
Coal mining	1.9891	.5496	18.0	2.0455	3.2107
Crude petroleum and natural gas	1.5605	.2196	8.6	2.2346	3.1381
Miscellaneous mining	2.3651	.6961	25.3	2.1347	3.1070
Construction:					
New construction	2.1282	.6518	29.9	2.2224	2.3984
Maintenance and repair construction	2.1427	.7872	36.2	1.7838	1.9109
Manufacturing:					
Food and kindred products and tobacco	2.6212	.4806	22.5	4.4941	5.5640
Textile mill products	1.9352	.5035	24.1	2.1242	2.1999
Apparel	1.6685	.4641	27.1	1.7782	1.6059
Paper and allied products	1.6634	.4157	17.7	1.8955	2.1408
Printing and publishing	1.9457	.5777	27.0	2.0156	2.1297
Chemicals and petroleum refining	1.9978	.3451	13.3	2.8620	3.9727
Rubber and leather products	1.8119	.5236	22.2	1.8540	2.1056
Lumber and wood products and furniture	1.9257	.5437	27.7	2.0353	1.9293
Stone, clay, and glass products	2.1351	.5952	24.9	2.2059	2.4835
Primary metal industries	2.1334	.5884	23.3	2.2869	2.7522
Fabricated metal products	1.8757	.4726	20.4	2.2267	2.4402
Machinery, except electrical	2.2274	.6534	24.7	2.3540	3.1600
Electric and electronic equipment	2.2263	.7019	27.4	2.1824	2.7516
Motor vehicles and equipment	1.7921	.4386	21.6	2.1864	2.0686
Transportation equipment, except motor vehicles	2.1453	.7088	24.5	2.0156	3.0075
Instruments and related products	1.9035	.5439	22.4	2.0142	2.3609
Miscellaneous manufacturing industries	1.9655	.5141	25.9	2.3466	2.1585
Transportation and public utilities: *					
Transportation	2.1740	.7572	32.3	1.8824	2.1739
Communication	1.7735	.5328	19.6	1.8036	2.5241
Electric, gas, water, and sanitary services	2.0326	.3258	12.4	3.8639	5.5710
Wholesale and retail trade:					
Wholesale trade	1.9755	.7075	28.8	1.7212	2.1271
Retail trade	2.2447	.8508	52.2	1.7493	1.5634
Finance, insurance, and real estate:					
Finance	2.5443	.9371	41.8	2.1663	2.4735
Insurance	2.7282	.9766	44.1	2.3882	2.6768
Real estate	1.3629	.1269	6.4	5.0793	4.5442
Services:					
Hotels and lodging places and amusements	2.0752	.6290	42.1	1.9744	1.5952
Personal services	2.1454	.8301	57.9	1.7187	1.4405
Business services	2.2655	.9368	44.6	1.7529	1.8394
Eating and drinking places	2.3275	.6629	52.7	2.1207	1.4799
Health services	2.2432	.9621	41.3	1.5990	1.7969
Miscellaneous services	2.2956	.6519	35.8	2.3870	2.0411
Households	1.3536	.4019	21.4		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Connecticut

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	1.8482	0.6074	31.6	1.7712	1.5171
Forestry and fishery products	1.6975	.3957	18.6	2.4087	1.8541
Mining:					
Coal mining	1.6563	.4683	10.9	1.7411	3.1899
Crude petroleum and natural gas	1.4837	.2071	5.2	2.1051	4.8079
Miscellaneous mining	1.8738	.5647	17.7	1.8314	2.2305
Construction:					
New construction	2.1945	.7148	25.8	2.2844	2.5035
Maintenance and repair construction	2.0820	.7806	26.6	1.8078	2.0617
Manufacturing:					
Food and kindred products and tobacco	1.7011	.3441	11.9	2.6582	2.9746
Textile mill products	1.7882	.4630	18.1	2.0925	2.0364
Apparel	1.7851	.5064	21.6	1.9072	1.7812
Paper and allied products	1.8619	.4327	13.4	2.2705	2.8203
Printing and publishing	2.1113	.6247	22.8	2.1591	2.2172
Chemicals and petroleum refining	1.9416	.4532	14.1	2.6289	3.5697
Rubber and leather products	2.0587	.5456	19.3	2.2429	2.2879
Lumber and wood products and furniture	1.9530	.5906	22.9	2.0492	1.9844
Stone, clay, and glass products	1.9746	.5546	19.1	2.1172	2.2934
Primary metal industries	1.9443	.4815	16.2	2.4309	2.6809
Fabricated metal products	1.9858	.5905	20.6	2.0577	2.1870
Machinery, except electrical	2.1383	.6747	21.9	2.1254	2.4885
Electric and electronic equipment	2.1769	.6878	23.2	2.1560	2.3929
Motor vehicles and equipment	1.8964	.5131	18.3	2.1204	2.2603
Transportation equipment, except motor vehicles	2.1586	.6967	22.2	2.1126	2.5127
Instruments and related products	2.0608	.6456	21.6	2.0737	2.3632
Miscellaneous manufacturing industries	2.1915	.6232	23.7	2.4331	2.3647
Transportation and public utilities: *					
Transportation	1.9883	.7759	29.3	1.7339	1.7989
Communication	1.6812	.5136	14.9	1.7371	2.3550
Electric, gas, water, and sanitary services	1.5084	.2215	7.0	2.5793	3.2796
Wholesale and retail trade:					
Wholesale trade	1.8272	.6777	21.3	1.6470	2.0160
Retail trade	2.0621	.8159	40.0	1.6759	1.4992
Finance, insurance, and real estate:					
Finance	2.2048	.8092	26.6	2.0326	2.4392
Insurance	2.9269	1.0511	34.9	2.7057	3.1481
Real estate	1.3299	.1220	4.4	5.8199	6.1571
Services:					
Hotels and lodging places and amusements	1.9637	.6185	34.4	1.9303	1.5392
Personal services	2.0356	.8214	43.5	1.6653	1.4313
Business services	2.0625	.8771	32.9	1.6728	1.7433
Eating and drinking places	1.9110	.5893	36.2	1.8835	1.4123
Health services	2.1105	.9319	33.2	1.5715	1.6764
Miscellaneous services	2.1265	.6375	29.3	2.2245	1.8218
Households	1.1327	.3591	15.1	.....	.....

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Delaware

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	1.7707	0.3453	15.2	2.1249	2.2332
Forestry and fishery products	1.6072	.3353	18.5	1.9265	1.6428
Mining:					
Coal mining	1.0000	0	0	0	0
Crude petroleum and natural gas	1.0000	0	0	0	0
Miscellaneous mining	1.9948	.5311	21.5	1.8714	2.1244
Construction:					
New construction	1.9650	.5985	22.4	2.0211	2.9344
Maintenance and repair construction	1.8801	.6759	29.1	1.5947	1.7432
Manufacturing:					
Food and kindred products and tobacco	2.0100	.3712	18.2	2.7131	2.3742
Textile mill products	1.9780	.4606	19.7	2.1637	2.2544
Apparel	1.6690	.4244	26.3	1.7504	1.5013
Paper and allied products	1.4386	.2363	9.8	1.9258	2.0924
Printing and publishing	1.6931	.5056	23.3	1.6587	1.7247
Chemicals and petroleum refining	2.0030	.3713	11.9	2.5396	3.9392
Rubber and leather products	2.0683	.4816	17.8	2.0880	2.3979
Lumber and wood products and furniture	1.7027	.4551	22.9	1.8188	1.7258
Stone, clay, and glass products	1.6698	.3987	18.7	1.8800	1.8416
Primary metal industries	1.8519	.4164	15.9	2.1221	2.4631
Fabricated metal products	1.7352	.4726	20.4	1.7728	1.8745
Machinery, except electrical	1.7407	.5354	22.6	1.6778	1.8242
Electric and electronic equipment	1.6700	.4754	16.4	1.6722	2.2120
Motor vehicles and equipment	1.4806	.2384	8.1	2.2700	3.3647
Transportation equipment, except motor vehicles	1.6011	.4976	17.9	1.5554	1.9470
Instruments and related products	1.6748	.4819	21.5	1.6601	1.7562
Miscellaneous manufacturing industries	1.8640	.4978	21.3	1.9153	2.0365
Transportation and public utilities: *					
Transportation	2.0813	.6815	29.2	1.8211	1.9604
Communication	1.5000	.4330	18.2	1.5273	1.7066
Electric, gas, water, and sanitary services	1.5306	.2112	7.5	2.5679	3.8990
Wholesale and retail trade:					
Wholesale trade	1.6892	.5966	22.8	1.5121	1.8412
Retail trade	1.8907	.7203	45.5	1.5429	1.4055
Finance, insurance, and real estate:					
Finance	1.7964	.5699	26.4	1.7853	1.9168
Insurance	2.0328	.7073	30.6	1.8470	2.0817
Real estate	1.2621	.0931	4.4	5.1293	4.6750
Services:					
Hotels and lodging places and amusements	1.7147	.4731	35.1	1.7352	1.4099
Personal services	1.7576	.6909	50.2	1.4582	1.2856
Business services	1.8359	.7777	38.4	1.4939	1.5246
Eating and drinking places	1.7630	.5066	42.4	1.6886	1.3150
Health services	1.9477	.8347	33.6	1.4554	1.6216
Miscellaneous services	1.8025	.5790	35.7	1.6742	1.4887
Households .....	.9739	.2822	14.9	.....	.....

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

District of Columbia

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	1.2870	0.2737	16.7	1.1256	1.0669
Forestry and fishery products	1.0000	0	0	0	0
Mining:					
Coal mining	1.1434	.1123	2.4	1.1305	1.2192
Crude petroleum and natural gas	1.2773	.0492	1.0	1.3544	1.6745
Miscellaneous mining	1.2797	.1383	2.9	1.2391	1.3919
Construction:					
New construction	1.2405	.1563	5.9	1.3147	1.2393
Maintenance and repair construction	1.1432	.1761	6.1	1.1082	1.1153
Manufacturing:					
Food and kindred products and tobacco	1.1312	.0917	2.3	1.2224	1.2936
Textile mill products	1.0926	.0656	2.4	1.1949	1.1790
Apparel	1.1342	.1074	7.0	1.1793	1.0883
Paper and allied products	1.1147	.0715	1.5	1.1988	1.3400
Printing and publishing	1.3025	.1533	4.4	1.3312	1.3815
Chemicals and petroleum refining	1.5662	.0545	1.2	2.2551	2.5351
Rubber and leather products	1.1533	.1041	4.6	1.1784	1.1201
Lumber and wood products and furniture	1.1718	.1270	4.5	1.1866	1.1645
Stone, clay, and glass products	1.1855	.0975	4.6	1.2461	1.1669
Primary metal industries	1.1410	.0670	1.1	1.2630	1.5806
Fabricated metal products	1.1528	.1192	2.7	1.1788	1.2715
Machinery, except electrical	1.1661	.1160	2.0	1.2054	1.4515
Electric and electronic equipment	1.2200	.1277	3.0	1.2652	1.3548
Motor vehicles and equipment	1.0831	.0511	.7	1.2630	1.8564
Transportation equipment, except motor vehicles	1.1747	.1347	2.2	1.1916	1.4505
Instruments and related products	1.1681	.1237	3.9	1.2018	1.2068
Miscellaneous manufacturing industries	1.2213	.1433	6.3	1.2333	1.1610
Transportation and public utilities: *					
Transportation	1.2180	.2463	8.6	1.1155	1.1145
Communication	1.2962	.1425	3.4	1.3036	1.5474
Electric, gas, water, and sanitary services	1.3524	.0500	1.3	1.6502	1.7189
Wholesale and retail trade:					
Wholesale trade	1.2427	.1813	4.7	1.1923	1.2609
Retail trade	1.3667	.2201	11.2	1.2238	1.1348
Finance, insurance, and real estate:					
Finance	1.5374	.2390	7.0	1.4690	1.5154
Insurance	1.4889	.2097	6.4	1.4422	1.4797
Real estate	1.1541	.0226	.8	2.6711	2.5424
Services:					
Hotels and lodging places and amusements	1.4144	.1599	6.9	1.4305	1.2926
Personal services	1.2744	.2237	16.3	1.1605	1.0718
Business services	1.3418	.2614	7.0	1.2072	1.2535
Eating and drinking places	1.2380	.1432	9.3	1.2387	1.1039
Health services	1.2997	.2463	7.9	1.1244	1.1331
Miscellaneous services	1.4209	.1941	6.7	1.3161	1.2920
Households .....	.4661	.0504	1.9		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Florida

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	1.8766	0.5510	28.5	1.8981	1.8438
Forestry and fishery products	1.7052	.3556	19.1	2.7461	2.3380
Mining:					
Coal mining	1.5729	.4423	12.3	1.6464	3.3016
Crude petroleum and natural gas	1.4742	.2059	6.6	2.0952	5.2582
Miscellaneous mining	1.7365	.4655	19.3	1.8838	2.1781
Construction:					
New construction	2.1260	.6829	35.1	2.2377	2.1106
Maintenance and repair construction	2.0193	.7551	36.9	1.7593	1.8096
Manufacturing:					
Food and kindred products and tobacco	1.8724	.3917	18.2	2.9117	3.1654
Textile mill products	1.7887	.4698	25.6	1.9836	1.7987
Apparel	1.7088	.4835	31.7	1.8346	1.5820
Paper and allied products	1.7571	.3862	15.4	2.2423	2.8737
Printing and publishing	1.8686	.5756	27.2	1.9040	1.9719
Chemicals and petroleum refining	1.7928	.3695	15.0	2.6763	3.3985
Rubber and leather products	1.6913	.4751	24.3	1.8102	1.7459
Lumber and wood products and furniture	1.8499	.5022	26.7	2.0638	1.9380
Stone, clay, and glass products	1.8716	.5221	25.3	2.0513	2.0352
Primary metal industries	1.6574	.4163	17.4	2.0040	2.3136
Fabricated metal products	1.7121	.4826	22.2	1.8736	1.9644
Machinery, except electrical	1.8761	.5787	23.2	1.9617	2.3735
Electric and electronic equipment	1.9882	.6704	27.8	1.9238	2.2191
Motor vehicles and equipment	1.5856	.3599	17.5	2.0860	2.0611
Transportation equipment, except motor vehicles	1.8320	.5730	22.5	1.8729	2.3100
Instruments and related products	1.8665	.6157	28.4	1.8346	1.9344
Miscellaneous manufacturing industries	1.7687	.4766	25.2	2.0544	1.9121
Transportation and public utilities: *					
Transportation	1.9557	.7125	32.2	1.7946	1.9489
Communication	1.6548	.5061	20.9	1.7133	2.0480
Electric, gas, water, and sanitary services	1.4021	.2265	9.0	2.4433	3.4955
Wholesale and retail trade:					
Wholesale trade	1.8142	.6728	28.4	1.6369	1.8975
Retail trade	2.0508	.8108	49.7	1.6671	1.5068
Finance, insurance, and real estate:					
Finance	2.2059	.8209	34.7	1.9852	2.3397
Insurance	2.5441	.9586	41.4	2.2529	2.5692
Real estate	1.3559	.1310	6.4	4.9818	4.9172
Services:					
Hotels and lodging places and amusements	1.9010	.5901	37.3	1.8764	1.5949
Personal services	1.9467	.7799	57.3	1.6281	1.3688
Business services	2.0172	.8822	39.8	1.6148	1.7423
Eating and drinking places	2.0010	.6037	45.5	1.9316	1.4571
Health services	2.0459	.9293	38.3	1.5334	1.7520
Miscellaneous services	2.0134	.5642	31.9	2.3821	2.0266
Households	1.1313	.3572	18.9		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Georgia

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.1446	0.4876	26.0	2.4718	2.1288
Forestry and fishery products	1.6360	2163	10.5	6.3794	5.7236
Mining:					
Coal mining	1.6948	.4732	26.0	1.7609	1.6035
Crude petroleum and natural gas	1.5102	.2120	7.7	2.1566	3.3473
Miscellaneous mining	1.9162	.5154	20.7	2.0096	2.3803
Construction:					
New construction	2.4250	.7632	36.8	2.4248	2.3326
Maintenance and repair construction	2.2773	.8191	39.0	1.8932	1.9281
Manufacturing:					
Food and kindred products and tobacco	2.1912	.4268	19.3	3.5754	3.9367
Textile mill products	2.5216	.5480	26.4	3.2830	3.1244
Apparel	2.6029	.6803	40.8	2.6105	2.0758
Paper and allied products	2.3074	.5250	21.3	2.9456	3.7730
Printing and publishing	2.3057	.6839	30.6	2.2178	2.3076
Chemicals and petroleum refining	1.9204	.4154	16.8	2.7028	3.2515
Rubber and leather products	2.0343	.5413	25.5	2.1633	2.1060
Lumber and wood products and furniture	2.5420	.6366	32.2	2.7934	2.6011
Stone, clay, and glass products	2.1422	.5905	26.0	2.2821	2.3776
Primary metal industries	2.0141	.4965	19.8	2.4767	2.9742
Fabricated metal products	2.0401	.5401	24.1	2.2959	2.3426
Machinery, except electrical	2.0822	.6308	27.7	2.1097	2.2320
Electric and electronic equipment	2.1441	.6388	26.9	2.2035	2.4632
Motor vehicles and equipment	1.9646	.4278	17.0	2.9528	3.8412
Transportation equipment, except motor vehicles	2.0744	.6017	24.1	2.1640	2.6577
Instruments and related products	2.0993	.6559	29.6	2.0120	2.1189
Miscellaneous manufacturing industries	2.3424	.6516	31.5	2.5201	2.3743
Transportation and public utilities: *					
Transportation	2.0667	.7176	29.7	1.8979	2.2105
Communication	1.7510	.5284	20.2	1.7884	2.3289
Electric, gas, water, and sanitary services	1.5518	.2339	8.9	2.7497	4.0769
Wholesale and retail trade:					
Wholesale trade	1.9711	.7113	27.9	1.7302	2.1492
Retail trade	2.2284	.8523	51.2	1.7520	1.5537
Finance, insurance, and real estate:					
Finance	2.3692	.8555	36.7	2.1046	2.3738
Insurance	2.7259	1.0008	41.5	2.3524	2.7686
Real estate	1.3598	.1261	5.9	5.4299	5.8404
Services:					
Hotels and lodging places and amusements	2.1460	.6626	41.7	2.0526	1.6697
Personal services	2.1678	.8223	59.5	1.7592	1.4295
Business services	2.1944	.9079	39.1	1.7225	1.9051
Eating and drinking places	2.2877	.6626	50.3	2.1192	1.4869
Health services	2.2356	.9672	39.8	1.6032	1.8223
Miscellaneous services	2.1927	.7207	40.6	1.9968	1.7726
Households	1.3250	.4005	20.7		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Hawaii

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	1.7165	0.4776	28.6	1.7177	1.5175
Forestry and fishery products	1.7608	.4420	22.0	2.0171	1.7789
Mining:					
Coal mining	1.0000	0	0	0	0
Crude petroleum and natural gas	1.0000	0	0	0	0
Miscellaneous mining	1.6325	.4623	15.5	1.6140	2.0586
Construction:					
New construction	1.8491	.6044	20.8	1.8909	2.5463
Maintenance and repair construction	1.7759	.6696	23.5	1.5642	1.9519
Manufacturing:					
Food and kindred products and tobacco	1.9573	.3765	18.4	2.9752	3.1193
Textile mill products	1.4900	.3445	19.8	1.7576	1.5335
Apparel	1.5883	.4454	31.0	1.6690	1.4045
Paper and allied products	1.4117	.3439	13.7	1.5548	1.7111
Printing and publishing	1.7008	.5295	18.5	1.7062	2.1634
Chemicals and petroleum refining	1.2369	.0904	3.4	2.6413	3.3344
Rubber and leather products	1.5533	.4444	24.7	1.6164	1.4576
Lumber and wood products and furniture	1.5800	.4427	18.7	1.7077	1.7945
Stone, clay, and glass products	1.6339	.4179	14.4	1.8316	2.3286
Primary metal industries	1.3987	.2377	6.2	2.1318	9.4328
Fabricated metal products	1.4345	.3089	12.5	1.7544	1.8979
Machinery, except electrical	1.6242	.4606	19.4	1.7766	1.8734
Electric and electronic equipment	1.6054	.5680	25.6	1.5039	1.5238
Motor vehicles and equipment	1.4598	.3801	19.7	1.6190	1.5112
Transportation equipment, except motor vehicles	1.7133	.6200	22.6	1.5468	1.7898
Instruments and related products	1.6059	.5003	20.7	1.6047	1.7329
Miscellaneous manufacturing industries	1.5215	.3878	24.4	1.7441	1.4502
Transportation and public utilities:*					
Transportation	1.9994	.6270	26.9	1.8169	1.9055
Communication	1.6052	.4843	17.4	1.6375	1.9941
Electric, gas, water, and sanitary services	1.4373	.2094	7.0	2.2945	3.2434
Wholesale and retail trade:					
Wholesale trade	1.7626	.6478	26.8	1.5743	1.7059
Retail trade	1.9913	.7824	42.9	1.6070	1.4716
Finance, insurance, and real estate:					
Finance	2.0351	.7360	31.6	1.8489	1.9483
Insurance	2.2564	.8460	34.9	1.9842	2.1568
Real estate	1.3814	.1417	6.0	4.1519	3.9055
Services:					
Hotels and lodging places and amusements	1.8606	.5743	29.2	1.8013	1.6427
Personal services	1.8111	.7261	41.7	1.5233	1.3944
Business services	1.9725	.8707	34.8	1.5730	1.7204
Eating and drinking places	1.8649	.5578	36.6	1.7829	1.4496
Health services	1.9488	.8924	32.8	1.4656	1.6695
Miscellaneous services	1.8450	.6210	35.5	1.6718	1.4823
Households	1.0594	.3251	15.9		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Idaho

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.1319	0.4807	22.9	2.5197	2.9074
Forestry and fishery products	1.7825	.2188	11.4	12.8770	8.6957
Mining:					
Coal mining	1.0000	0	0	0	0
Crude petroleum and natural gas	1.4022	.1817	7.5	1.8470	2.6751
Miscellaneous mining	1.8165	.5305	22.1	1.7444	2.3363
Construction:					
New construction	1.8850	.5977	28.0	2.0050	2.5091
Maintenance and repair construction	1.8116	.7132	34.8	1.5739	1.7949
Manufacturing:					
Food and kindred products and tobacco	2.3397	.4551	22.8	3.8266	3.9440
Textile mill products	1.5931	.4154	25.7	1.8259	1.7088
Apparel	1.4761	.4158	33.6	1.5804	1.3741
Paper and allied products	1.9686	.4384	17.6	2.3893	3.5427
Printing and publishing	1.8888	.5669	33.7	1.8588	1.7490
Chemicals and petroleum refining	1.8036	.4045	16.4	2.2877	3.3290
Rubber and leather products	1.5829	.4323	26.5	1.7255	1.6409
Lumber and wood products and furniture	2.4884	.5690	24.4	2.6851	3.5426
Stone, clay, and glass products	2.0195	.5292	32.9	2.3760	2.0658
Primary metal industries	1.6539	.4687	17.0	1.8010	2.9982
Fabricated metal products	1.5650	.4531	23.7	1.6689	1.7875
Machinery, except electrical	1.8424	.5404	24.3	1.9905	2.4810
Electric and electronic equipment	2.0770	.7268	31.7	1.9704	2.4798
Motor vehicles and equipment	1.5436	.4011	21.6	1.7676	1.8453
Transportation equipment, except motor vehicles	1.9328	.4865	26.6	2.2995	2.1981
Instruments and related products	1.6439	.5465	30.4	1.6027	1.6580
Miscellaneous manufacturing industries	1.7309	.4882	29.3	1.8838	1.8023
Transportation and public utilities: *					
Transportation	1.8395	.7295	34.1	1.6458	1.9342
Communication	1.5095	.4605	21.2	1.5570	1.8868
Electric, gas, water, and sanitary services	1.4260	.2027	8.6	2.3114	3.2894
Wholesale and retail trade:					
Wholesale trade	1.6765	.6279	31.3	1.5259	1.7461
Retail trade	1.8561	.7533	51.7	1.5473	1.4673
Finance, insurance, and real estate:					
Finance	1.8304	.6524	34.2	1.7503	1.9242
Insurance	2.0900	.8386	44.5	1.8286	2.0194
Real estate	1.1648	.0661	3.8	4.9969	3.8420
Services:					
Hotels and lodging places and amusements	1.7226	.5336	50.4	1.7101	1.3480
Personal services	1.7673	.7306	56.5	1.5094	1.3604
Business services	1.8149	.7859	39.3	1.5212	1.7064
Eating and drinking places	1.9992	.5851	59.7	1.8700	1.3421
Health services	1.8226	.8596	42.5	1.4257	1.5816
Miscellaneous services	1.7935	.6052	40.6	1.7256	1.6028
Households .....	.9736	.3080	19.7		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Illinois

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.2601	0.5388	27.0	2.4996	2.0861
Forestry and fishery products	1.6638	.2116	9.6	12.2601	6.4589
Mining:					
Coal mining	2.2510	.6190	20.1	2.3014	3.1359
Crude petroleum and natural gas	1.5917	.2307	10.3	2.3454	2.1223
Miscellaneous mining	2.1635	.5894	20.7	2.1803	2.6920
Construction:					
New construction	2.5941	.7978	30.8	2.5608	2.9119
Maintenance and repair construction	2.5492	.8822	32.7	2.0584	2.4596
Manufacturing:					
Food and kindred products and tobacco	2.5765	.4933	20.4	4.9992	6.2007
Textile mill products	1.9525	.4754	21.7	2.2727	2.0456
Apparel	1.8601	.5131	24.3	1.9711	1.8200
Paper and allied products	1.9999	.4724	18.1	2.3470	2.5857
Printing and publishing	2.2239	.6464	25.7	2.2627	2.4377
Chemicals and petroleum refining	1.8927	.3203	11.4	3.4102	4.5654
Rubber and leather products	2.2977	.5789	23.3	2.3950	2.4088
Lumber and wood products and furniture	2.3871	.6801	28.3	2.4554	2.3793
Stone, clay, and glass products	2.3475	.6557	25.5	2.3486	2.4934
Primary metal industries	2.5461	.6709	24.2	2.8573	3.3720
Fabricated metal products	2.6402	.7288	27.1	2.7635	3.0814
Machinery, except electrical	2.6369	.7717	27.6	2.6256	3.1758
Electric and electronic equipment	2.5873	.7701	30.0	2.5395	2.7161
Motor vehicles and equipment	2.5992	.6118	22.7	3.7116	4.3348
Transportation equipment, except motor vehicles	2.6119	.7651	26.8	2.5775	3.2593
Instruments and related products	2.2859	.6870	25.9	2.1852	2.4730
Miscellaneous manufacturing industries	2.5004	.6802	28.2	2.7427	2.6971
Transportation and public utilities: *					
Transportation	2.4659	.8167	31.4	2.0753	2.3091
Communication	1.9024	.5659	20.1	1.9138	2.4078
Electric, gas, water, and sanitary services	1.9832	.3230	11.0	3.8570	5.3610
Wholesale and retail trade:					
Wholesale trade	2.1135	.7439	26.8	1.8079	2.2012
Retail trade	2.4184	.8981	49.0	1.8446	1.5871
Finance, insurance, and real estate:					
Finance	2.5573	.8998	32.2	2.2311	2.8011
Insurance	3.1015	1.0936	41.4	2.6759	3.0871
Real estate	1.3909	.1347	5.4	6.4103	6.2783
Services:					
Hotels and lodging places and amusements	2.2143	.6565	37.2	2.1562	1.7065
Personal services	2.3534	.8795	52.0	1.8262	1.5042
Business services	2.3722	.9485	36.3	1.7947	2.0143
Eating and drinking places	2.4450	.6982	48.4	2.2315	1.5045
Health services	2.4391	1.0048	41.0	1.6760	1.7651
Miscellaneous services	2.5786	.8549	42.9	2.1346	1.8228
Households	1.5144	.4435	20.5	.....	.....

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Indiana

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.2264	0.5034	35.3	2.5084	1.9576
Forestry and fishery products	1.5336	.1812	12.1	5.2703	2.9875
Mining:					
Coal mining	2.0827	.5687	20.3	2.1145	3.3168
Crude petroleum and natural gas	1.5196	.2084	9.6	2.1185	2.4670
Miscellaneous mining	1.9954	.5521	24.2	1.9571	2.2999
Construction:					
New construction	2.4836	.7600	37.5	2.3922	2.5060
Maintenance and repair construction	2.4389	.8542	39.9	1.9528	2.1914
Manufacturing:					
Food and kindred products and tobacco	2.5803	.4840	26.6	4.9136	6.4006
Textile mill products	1.7599	.3834	19.1	2.1821	2.2304
Apparel	1.7035	.4590	28.0	1.7943	1.6525
Paper and allied products	2.0483	.4756	21.4	2.3703	2.7297
Printing and publishing	1.9511	.5875	29.4	1.8803	1.9906
Chemicals and petroleum refining	1.7228	.2957	11.8	2.8155	4.6958
Rubber and leather products	2.0984	.5337	25.4	2.1446	2.2506
Lumber and wood products and furniture	2.2498	.6440	32.8	2.2590	2.2440
Stone, clay, and glass products	2.2868	.6184	28.1	2.3034	2.5807
Primary metal industries	2.4333	.6435	25.1	2.5945	3.7649
Fabricated metal products	2.5198	.6967	30.2	2.5999	2.9305
Machinery, except electrical	2.5222	.7412	30.9	2.4480	3.0193
Electric and electronic equipment	2.5707	.7223	30.6	2.7075	3.4871
Motor vehicles and equipment	2.5269	.6539	26.5	2.8832	3.9758
Transportation equipment, except motor vehicles	2.4176	.6572	27.7	2.6103	3.3647
Instruments and related products	2.1370	.6308	27.6	2.0552	2.4515
Miscellaneous manufacturing industries	2.3019	.6234	30.1	2.4914	2.6091
Transportation and public utilities:*					
Transportation	2.3034	.7869	36.6	1.9407	2.1884
Communication	1.6910	.5012	21.3	1.6949	2.1351
Electric, gas, water, and sanitary services	1.9537	.3071	12.3	3.7312	5.3335
Wholesale and retail trade:					
Wholesale trade	1.9118	.6789	29.9	1.6499	2.0168
Retail trade	2.1474	.8115	55.5	1.6667	1.4951
Finance, insurance, and real estate:					
Finance	2.0148	.6808	35.0	1.8525	1.9741
Insurance	2.4076	.8542	39.7	2.1076	2.4865
Real estate	1.2664	.0953	5.0	5.7360	4.9520
Services:					
Hotels and lodging places and amusements	1.9940	.5997	50.2	1.8850	1.4546
Personal services	2.1554	.8109	57.6	1.7039	1.4743
Business services	2.0588	.8354	44.2	1.6186	1.6751
Eating and drinking places	2.2624	.6353	57.7	2.0304	1.4360
Health services	2.2123	.9393	43.3	1.5727	1.7696
Miscellaneous services	2.3224	.7441	46.7	2.0591	1.7598
Households	1.3056	.3805	22.1		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Iowa

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.3678	0.4856	30.8	2.9808	2.6229
Forestry and fishery products	1.7232	.1939	12.4	11.5071	6.2815
Mining:					
Coal mining	1.6867	.4656	21.7	1.7310	2.0219
Crude petroleum and natural gas	1.4354	.1855	6.5	1.8856	4.4209
Miscellaneous mining	1.7770	.5012	24.0	1.7821	2.0707
Construction:					
New construction	2.0568	.6468	35.1	2.0354	2.1148
Maintenance and repair construction	2.0822	.7706	39.6	1.7549	1.9493
Manufacturing:					
Food and kindred products and tobacco	2.9516	.5082	28.7	6.1762	8.3121
Textile mill products	1.7341	.4575	32.0	1.9125	1.6869
Apparel	1.6668	.4642	30.8	1.7631	1.6600
Paper and allied products	1.7958	.4366	21.2	2.0626	2.3542
Printing and publishing	1.7808	.5185	27.9	1.8590	2.0030
Chemicals and petroleum refining	1.7860	.3662	16.6	2.5679	3.4961
Rubber and leather products	1.8394	.4693	21.9	2.0120	2.4128
Lumber and wood products and furniture	1.9086	.5533	27.6	2.0020	2.2373
Stone, clay, and glass products	1.9844	.5110	24.5	2.2145	2.5698
Primary metal industries	1.8375	.4482	18.5	2.1965	3.2442
Fabricated metal products	1.9263	.5504	25.9	1.9784	2.2972
Machinery, except electrical	2.0769	.5759	24.5	2.2289	3.0229
Electric and electronic equipment	1.9754	.5951	26.9	1.9643	2.4119
Motor vehicles and equipment	2.1390	.5597	27.5	2.3516	2.6277
Transportation equipment, except motor vehicles	1.8794	.4831	23.3	2.1875	2.5025
Instruments and related products	1.9775	.6040	31.6	1.9587	2.0909
Miscellaneous manufacturing industries	2.0181	.5274	27.8	2.3088	2.4117
Transportation and public utilities: *					
Transportation	1.9820	.7552	36.0	1.7268	2.0474
Communication	1.5704	.4699	20.8	1.5888	2.0772
Electric, gas, water, and sanitary services	1.6636	.2169	9.3	2.7506	3.9978
Wholesale and retail trade:					
Wholesale trade	1.7882	.6529	31.4	1.5868	1.9174
Retail trade	1.9898	.7798	58.2	1.6017	1.4589
Finance, insurance, and real estate:					
Finance	1.9489	.6833	35.8	1.8099	2.0259
Insurance	2.5117	.9239	46.2	2.2252	2.6255
Real estate	1.1923	.0735	4.2	5.8110	5.0573
Services:					
Hotels and lodging places and amusements	1.8140	.5361	53.1	1.7927	1.3734
Personal services	1.9532	.7811	66.3	1.5817	1.3608
Business services	1.9161	.7977	43.2	1.5533	1.6740
Eating and drinking places	2.2322	.6222	65.8	1.9885	1.3739
Health services	2.0166	.8914	45.5	1.5034	1.6680
Miscellaneous services	2.0573	.6708	47.6	1.8788	1.6344
Households	1.1631	.3488	22.5	.....	.....

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Kansas

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.8355	0.1931	37.9	3.6394	2.6700
Forestry and fishery products	1.6974	.1759	12.3	10.4338	5.2431
Mining:					
Coal mining	1.8387	.4859	19.4	1.8065	2.4673
Crude petroleum and natural gas	1.5452	.2045	15.0	2.0794	1.6418
Miscellaneous mining	1.9782	.5094	25.6	1.8852	2.0236
Construction:					
New construction	2.1012	.6057	30.3	2.0789	2.2546
Maintenance and repair construction	2.2337	.7772	38.5	1.7674	1.9574
Manufacturing:					
Food and kindred products and tobacco	3.2474	.5164	33.3	5.8265	8.5159
Textile mill products	1.8189	.5038	44.2	1.7406	1.3685
Apparel	1.6824	.4523	29.9	1.7264	1.5690
Paper and allied products	1.8294	.4070	18.7	2.0312	2.3685
Printing and publishing	1.9546	.5423	28.3	1.9204	2.0023
Chemicals and petroleum refining	2.1448	.2686	14.0	4.1433	7.0227
Rubber and leather products	1.8713	.4458	20.6	1.9408	2.2527
Lumber and wood products and furniture	1.9185	.5420	30.2	1.8913	1.8283
Stone, clay, and glass products	2.1330	.5082	23.6	2.1815	2.5203
Primary metal industries	2.0059	.5503	26.0	1.9748	2.2161
Fabricated metal products	1.9193	.5303	25.2	1.9403	2.1696
Machinery, except electrical	2.0735	.5863	27.0	2.0870	2.4158
Electric and electronic equipment	2.0809	.6126	30.2	1.9556	2.1139
Motor vehicles and equipment	1.8909	.3729	16.2	2.7779	3.6504
Transportation equipment, except motor vehicles	1.9827	.6260	25.3	1.8246	2.4453
Instruments and related products	1.8775	.5220	24.6	1.8513	2.1278
Miscellaneous manufacturing industries	2.2812	.6244	31.9	2.3431	2.4179
Transportation and public utilities:*					
Transportation	2.0387	.5870	26.2	1.8512	2.2807
Communication	1.6673	.4854	19.8	1.6417	2.1982
Electric, gas, water, and sanitary services	2.1166	.2822	13.2	3.5203	5.4007
Wholesale and retail trade:					
Wholesale trade					
Wholesale trade	1.9414	.6730	29.9	1.6357	2.0267
Retail trade					
Retail trade	2.1863	.8047	54.8	1.6528	1.5081
Finance, insurance, and real estate:					
Finance	2.1573	.7241	36.7	1.8930	2.0802
Insurance	2.6025	.9302	43.8	2.1801	2.5630
Real estate	1.2486	.0867	4.7	5.5550	4.9203
Services:					
Hotels and lodging places and amusements	2.0587	.6065	55.3	1.8682	1.4051
Personal services	2.0617	.7729	53.5	1.6092	1.4557
Business services	2.0916	.8140	41.2	1.6314	1.7664
Eating and drinking places	2.2973	.6216	56.6	1.9867	1.4540
Health services	2.2073	.9135	44.7	1.5358	1.6934
Miscellaneous services	2.0881	.6171	41.5	1.8815	1.6476
Households	1.3263	.3639	21.9	.....	.....

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Kentucky

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.4394	0.4955	36.5	2.9504	2.2975
Forestry and fishery products					
.....	1.8632	.2214	14.8	13.1389	9.1364
Mining:					
Coal mining	2.0983	.5618	21.8	2.0887	2.9926
Crude petroleum and natural gas	1.5177	.2023	12.0	2.0570	1.9067
Miscellaneous mining	2.0189	.5383	25.8	1.9491	2.1509
Construction:					
New construction	2.3591	.7077	37.8	2.2736	2.3146
Maintenance and repair construction	2.3372	.8138	42.3	1.8498	1.9460
Manufacturing:					
Food and kindred products and tobacco	2.1674	.3474	18.7	4.0475	6.1059
Textile mill products	1.9655	.5368	30.8	1.8987	1.8444
Apparel	1.9346	.5257	36.1	1.9886	1.7486
Paper and allied products	2.0282	.4451	20.0	2.2986	2.8009
Printing and publishing	2.1054	.6033	30.3	1.9584	2.0869
Chemicals and petroleum refining	1.7618	.2105	9.3	3.4410	5.4791
Rubber and leather products	2.1783	.5088	24.7	2.1390	2.3029
Lumber and wood products and furniture	2.2922	.6176	34.4	2.3356	2.2375
Stone, clay, and glass products	2.3493	.6245	29.8	2.3043	2.5315
Primary metal industries	2.6560	.6298	26.3	2.9398	4.0197
Fabricated metal products	2.4442	.7045	32.1	2.2216	2.5095
Machinery, except electrical	2.4277	.6899	30.3	2.3296	2.9072
Electric and electronic equipment	2.4961	.6511	28.9	2.6660	3.2560
Motor vehicles and equipment	2.4724	.5165	21.8	3.7111	5.5112
Transportation equipment, except motor vehicles	2.1758	.6019	28.3	2.1549	2.4042
Instruments and related products	2.1431	.6461	34.5	1.9329	1.9362
Miscellaneous manufacturing industries	2.2679	.5541	29.4	2.5079	2.4403
Transportation and public utilities: *					
Transportation	2.2959	.7432	34.7	1.8984	2.2037
Communication	1.6776	.4906	22.0	1.6587	2.0290
Electric, gas, water, and sanitary services	2.0686	.3217	13.6	3.7408	5.4906
Wholesale and retail trade:					
Wholesale trade	1.9242	.6723	31.2	1.6340	1.9356
Retail trade	2.1610	.8041	56.7	1.6515	1.4791
Finance, insurance, and real estate:					
Finance	2.0388	.6812	34.4	1.8494	2.0473
Insurance	2.3357	.8368	39.7	1.9876	2.3235
Real estate	1.2243	.0802	4.5	5.5548	4.6900
Services:					
Hotels and lodging places and amusements	1.8730	.5129	43.8	1.8689	1.4550
Personal services	2.1992	.8104	57.2	1.7039	1.5031
Business services	2.0770	.8415	46.9	1.6006	1.6356
Eating and drinking places	2.1736	.6024	52.2	1.9254	1.4411
Health services	2.1974	.9277	43.7	1.5491	1.7522
Miscellaneous services	2.3779	.6732	43.4	2.2468	1.8556
Households	1.3303	.3734	22.3	.....	.....

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Louisiana

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.0799	0.4562	32.0	2.1727	1.7381
Forestry and fishery products	1.9889	.3740	21.2	2.9539	2.5721
Mining:					
Coal mining	1.7000	.4483	13.4	1.6779	3.2669
Crude petroleum and natural gas	1.5410	.2044	8.6	2.0918	2.6985
Miscellaneous mining	2.1154	.4967	19.9	2.0043	2.5938
Construction:					
New construction	1.9058	.5294	24.1	1.9607	2.1769
Maintenance and repair construction	2.0592	.7483	36.8	1.6438	1.7419
Manufacturing:					
Food and kindred products and tobacco	2.1703	.3881	20.3	3.4310	3.7551
Textile mill products	1.9376	.5128	29.2	1.7950	1.6902
Apparel	1.7607	.4775	33.7	1.8006	1.5536
Paper and allied products	2.3721	.4838	19.3	2.6133	3.8842
Printing and publishing	2.1780	.6187	29.5	1.9564	2.0286
Chemicals and petroleum refining	2.2609	.2664	10.6	4.7416	8.2260
Rubber and leather products	2.2645	.4968	22.7	2.0698	2.1866
Lumber and wood products and furniture	2.7196	.6062	31.4	2.9449	3.0791
Stone, clay, and glass products	2.1411	.5237	25.4	2.1369	2.1458
Primary metal industries	1.8956	.3939	16.7	2.3528	2.8274
Fabricated metal products	1.8426	.5036	22.8	1.8558	2.0597
Machinery, except electrical	1.8002	.4954	21.8	1.8341	2.0935
Electric and electronic equipment	1.9219	.5298	22.2	1.9261	2.3256
Motor vehicles and equipment	1.5670	.2744	10.7	2.4417	3.6567
Transportation equipment, except motor vehicles	1.8826	.5945	26.7	1.7171	1.9314
Instruments and related products	1.8571	.5835	24.9	1.6926	2.0061
Miscellaneous manufacturing industries	1.9663	.4972	24.6	2.0584	2.1219
Transportation and public utilities: *					
Transportation	2.3062	.6297	28.4	2.1758	2.4506
Communication ..	1.6665	.4867	20.8	1.6569	1.9942
Electric, gas, water, and sanitary services	2.1889	.2785	11.4	3.6016	4.9349
Wholesale and retail trade:					
Wholesale trade	1.8831	.6592	29.1	1.6127	1.8816
Retail trade	2.1218	.7902	53.7	1.6340	1.4513
Finance, insurance, and real estate:					
Finance	2.0489	.6983	34.5	1.8215	1.9343
Insurance	2.4444	.8962	40.1	2.0710	2.4121
Real estate	1.2064	.0760	4.2	4.8986	3.8573
Services:					
Hotels and lodging places and amusements	1.9053	.5432	38.2	1.8333	1.5219
Personal services	1.9873	.7404	49.9	1.5970	1.4306
Business services	1.9987	.8239	37.4	1.5645	1.7479
Eating and drinking places	2.0441	.5812	49.8	1.8700	1.3977
Health services	2.0990	.8966	38.7	1.5024	1.7210
Miscellaneous services	2.0703	.6219	38.6	1.9033	1.6803
Households	1.2333	.3494	19.9		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Maine

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	1.6652	0.4182	34.7	1.8795	1.4923
Forestry and fishery products	1.5404	.2049	12.1	4.9699	6.6100
Mining:					
Coal mining	1.0000	0	0	0	0
Crude petroleum and natural gas	1.0000	0	0	0	0
Miscellaneous mining	1.6074	.4732	22.3	1.6225	1.8219
Construction:					
New construction	2.0010	.6533	33.8	2.0874	2.2222
Maintenance and repair construction	1.8863	.7284	35.8	1.6584	1.8269
Manufacturing:					
Food and kindred products and tobacco	1.8125	.3778	21.2	2.5257	2.7800
Textile mill products	2.0933	.5159	27.2	2.4752	2.5285
Apparel	2.1406	.5692	34.1	2.2752	2.0384
Paper and allied products	1.7740	.4040	16.2	2.1878	3.2539
Printing and publishing	1.8876	.5790	29.2	1.8556	1.9054
Chemicals and petroleum refining	1.6001	.3779	17.2	2.0452	2.4191
Rubber and leather products	1.8399	.5308	29.4	1.9718	1.9414
Lumber and wood products and furniture	2.1695	.5171	25.8	2.3507	2.7151
Stone, clay, and glass products	1.8422	.5063	30.1	2.0691	1.8836
Primary metal industries	1.4365	.3136	12.2	1.8173	2.5309
Fabricated metal products	1.6464	.4974	22.8	1.7343	1.9695
Machinery, except electrical	1.7608	.6015	26.5	1.7131	2.0089
Electric and electronic equipment	1.9844	.6647	31.5	1.9294	2.1538
Motor vehicles and equipment	1.5588	.4218	22.9	1.7279	1.7374
Transportation equipment, except motor vehicles	1.7660	.6254	26.8	1.6479	1.9782
Instruments and related products	1.7841	.5570	29.1	1.7959	1.8459
Miscellaneous manufacturing industries	1.8602	.5135	32.1	2.1104	1.8135
Transportation and public utilities: *					
Transportation	1.8751	.7343	34.7	1.6742	1.8602
Communication	1.5354	.4687	20.8	1.5845	1.8913
Electric, gas, water, and sanitary services	1.3612	.2235	10.1	2.3091	2.8376
Wholesale and retail trade:					
Wholesale trade	1.6959	.6354	28.6	1.5442	1.8144
Retail trade	1.9023	.7690	50.6	1.5794	1.4671
Finance, insurance, and real estate:					
Finance	1.7646	.6005	29.2	1.7434	1.9372
Insurance	2.3812	.8977	38.8	2.1624	2.6499
Real estate	1.2370	.0924	4.8	5.6997	5.4165
Services:					
Hotels and lodging places and amusements	1.7386	.5387	45.6	1.7295	1.3860
Personal services	1.8515	.7579	53.4	1.5634	1.4088
Business services	1.8618	.8350	43.2	1.5268	1.6097
Eating and drinking places	1.8294	.5564	47.5	1.7783	1.3954
Health services	1.9019	.8713	41.5	1.4746	1.6199
Miscellaneous services	1.8795	.5527	34.3	2.1140	1.8281
Households	1.0275	.3282	19.3		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs of all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Maryland

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	1.8899	0.4846	25.6	2.1301	1.8426
Forestry and fishery products	1.6389	.3683	19.8	2.3552	1.8580
Mining:					
Coal mining	1.6381	.4648	16.3	1.7281	2.1001
Crude petroleum and natural gas	1.4844	.2101	6.4	2.1360	4.2405
Miscellaneous mining	1.7323	.5108	22.1	1.7821	1.8209
Construction:					
New construction	2.1225	.6913	28.6	2.2508	2.4803
Maintenance and repair construction	2.0412	.7613	31.8	1.8085	1.9458
Manufacturing:					
Food and kindred products and tobacco	1.9281	.3949	16.9	3.0630	3.2385
Textile mill products	1.6913	.4569	23.4	1.9684	1.7545
Apparel	1.6887	.4929	26.4	1.8027	1.6329
Paper and allied products	1.7248	.4268	17.4	2.0753	2.2338
Printing and publishing	1.9592	.6022	24.6	2.0151	2.1869
Chemicals and petroleum refining	1.7596	.4286	16.1	2.2812	2.7405
Rubber and leather products	1.7349	.4672	19.8	1.9717	2.0113
Lumber and wood products and furniture	1.8181	.5200	23.5	2.0233	1.9459
Stone, clay, and glass products	2.0765	.5803	23.4	2.3654	2.5954
Primary metal industries	2.0089	.5580	19.5	2.2898	3.0049
Fabricated metal products	1.9921	.5449	21.6	2.2866	2.3870
Machinery, except electrical	1.8856	.5740	21.1	2.0000	2.3451
Electric and electronic equipment	1.9067	.6591	22.6	1.8232	2.2753
Motor vehicles and equipment	1.6889	.3420	12.1	2.7660	3.7344
Transportation equipment, except motor vehicles	1.8707	.6302	23.3	1.8215	2.1273
Instruments and related products	1.8785	.6162	25.3	1.8690	1.9711
Miscellaneous manufacturing industries	1.9143	.5628	26.9	2.0994	1.9032
Transportation and public utilities: *					
Transportation	2.0278	.7617	32.3	1.8455	1.9470
Communication	1.6354	.5028	16.7	1.7005	2.2956
Electric, gas, water, and sanitary services	1.4931	.2513	9.0	2.7548	3.9997
Wholesale and retail trade:					
Wholesale trade	1.8411	.6856	25.4	1.6663	1.9933
Retail trade	2.0702	.8221	44.8	1.6886	1.5325
Finance, insurance, and real estate:					
Finance	2.2435	.8365	33.3	2.0447	2.3038
Insurance	2.6269	.9848	37.3	2.3463	2.7631
Real estate	1.3707	.1361	5.9	5.0896	5.1121
Services:					
Hotels and lodging places and amusements	1.9212	.5909	37.9	1.9325	1.5282
Personal services	1.9298	.7737	47.5	1.6325	1.4092
Business services	2.0808	.8822	36.4	1.7074	1.8312
Eating and drinking places	2.0274	.6156	41.8	1.9675	1.4714
Health services	2.0846	.9387	37.3	1.5605	1.7072
Miscellaneous services	2.0716	.7210	37.5	1.8885	1.6964
Households	1.1546	.3699	17.7		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Massachusetts

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	1.8613	0.6350	32.2	1.7470	1.5916
Forestry and fishery products	1.6739	.4298	17.0	1.9747	2.0461
Mining:					
Coal mining	1.6211	.4503	21.1	1.7094	1.5839
Crude petroleum and natural gas	1.0000	0	0	0	0
Miscellaneous mining	1.7355	.5014	18.4	1.7713	1.9908
Construction:					
New construction	2.1753	.6944	27.0	2.2806	2.4101
Maintenance and repair construction	2.0855	.7663	28.8	1.8093	2.0381
Manufacturing:					
Food and kindred products and tobacco	1.7344	.3594	14.2	2.5299	2.6478
Textile mill products	2.2230	.5416	21.6	2.6730	2.7484
Apparel	2.3333	.6276	30.8	2.4471	2.0418
Paper and allied products	1.8606	.4382	16.5	2.2275	2.4374
Printing and publishing	2.0926	.6183	24.1	2.1599	2.3107
Chemicals and petroleum refining	1.7751	.3939	13.4	2.4397	3.1456
Rubber and leather products	2.0866	.5646	22.7	2.2185	2.2212
Lumber and wood products and furniture	1.9515	.5683	24.2	2.0725	1.9830
Stone, clay, and glass products	1.8209	.4913	19.0	1.9824	2.0977
Primary metal industries	1.9218	.4671	16.9	2.3571	2.6623
Fabricated metal products	1.8927	.5555	20.4	1.9745	2.2050
Machinery, except electrical	2.2447	.6811	23.0	2.3496	2.9522
Electric and electronic equipment	2.2693	.7309	25.9	2.2010	2.5581
Motor vehicles and equipment	1.6841	.3344	11.2	2.8368	4.0848
Transportation equipment, except motor vehicles	2.0501	.6586	21.8	2.0146	2.5450
Instruments and related products	2.0500	.6256	22.0	2.1161	2.5294
Miscellaneous manufacturing industries	1.9267	.4770	19.8	2.4225	2.3360
Transportation and public utilities: *					
Transportation	1.9510	.7573	30.6	1.6984	1.7938
Communication	1.7190	.5170	17.9	1.7848	2.1992
Electric, gas, water, and sanitary services	1.6065	.2097	7.1	2.6479	3.3633
Wholesale and retail trade:					
Wholesale trade	1.8434	.6707	23.5	1.6643	2.0017
Retail trade	2.0819	.8088	42.9	1.6962	1.5146
Finance, insurance, and real estate:					
Finance	2.1218	.7434	26.7	2.0218	2.3908
Insurance	2.6957	.9803	36.3	2.4225	2.7698
Real estate	1.3386	.1224	4.8	5.7349	6.1320
Services:					
Hotels and lodging places and amusements	1.9709	.5970	34.3	1.9768	1.5976
Personal services	2.0593	.7900	46.0	1.7164	1.4476
Business services	2.1181	.8876	32.7	1.7117	1.9241
Eating and drinking places	1.9198	.5809	38.2	1.8955	1.4273
Health services	2.1089	.9102	35.6	1.5721	1.6784
Miscellaneous services	2.1078	.7113	35.7	1.9309	1.6931
Households	1.1583	.3622	16.7		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings in households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Michigan

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	1.7833	0.4433	35.1	2.0227	1.5571
Forestry and fishery products	1.3907	.1655	9.7	4.3015	2.8744
Mining:					
Coal mining	1.0000	0	0	0	0
Crude petroleum and natural gas	1.4477	.1922	7.4	1.9540	2.4041
Miscellaneous mining	2.1005	.6123	23.1	2.0412	2.4836
Construction:					
New construction	2.1913	.7068	30.2	2.2622	2.4017
Maintenance and repair construction	2.1249	.7839	31.7	1.8160	2.0795
Manufacturing:					
Food and kindred products and tobacco	1.8095	.3463	15.6	2.7893	3.5207
Textile mill products	1.8086	.4338	17.2	2.1632	2.4775
Apparel	1.9003	.5207	19.6	2.0166	2.5507
Paper and allied products	2.0237	.4627	17.3	2.4461	2.9950
Printing and publishing	2.0789	.6313	27.2	1.9957	2.1020
Chemicals and petroleum refining	1.8646	.3814	13.5	2.6099	3.6920
Rubber and leather products	2.0897	.5349	23.1	2.1968	2.1780
Lumber and wood products and furniture	2.1002	.6155	25.1	2.2339	2.4543
Stone, clay, and glass products	2.0487	.5704	21.4	2.1583	2.6170
Primary metal industries	2.1519	.6099	21.7	2.3001	2.9811
Fabricated metal products	2.3508	.7035	26.3	2.4326	2.8572
Machinery, except electrical	2.1657	.7215	26.1	2.0200	2.5140
Electric and electronic equipment	2.1782	.6437	24.7	2.2883	2.6706
Motor vehicles and equipment	2.4770	.5631	19.3	3.8872	6.4247
Transportation equipment, except motor vehicles	2.1356	.6068	22.2	2.3016	2.8092
Instruments and related products	1.9835	.6288	25.1	1.9363	2.1917
Miscellaneous manufacturing industries	2.0648	.5597	24.5	2.3398	2.3571
Transportation and public utilities:*					
Transportation	1.8959	.7181	28.8	1.6852	1.9438
Communication	1.5725	.4777	18.1	1.6155	2.0005
Electric, gas, water, and sanitary services	1.5810	.2116	7.5	2.5793	3.6638
Wholesale and retail trade:					
Wholesale trade	1.7576	.6537	24.2	1.5886	2.0117
Retail trade	1.9514	.7817	48.7	1.6056	1.4420
Finance, insurance, and real estate:					
Finance	1.9620	.7142	31.4	1.8422	2.0065
Insurance	2.2135	.8286	33.8	2.0020	2.3495
Real estate	1.2046	.0793	3.7	5.4688	4.6981
Services:					
Hotels and lodging places and amusements	1.8605	.5745	38.3	1.8490	1.5260
Personal services	1.8953	.7571	50.0	1.5949	1.3903
Business services	1.9725	.8518	36.5	1.6153	1.7696
Eating and drinking places	1.9395	.5800	49.9	1.8537	1.3398
Health services	2.0127	.9067	39.2	1.5110	1.6294
Miscellaneous services	2.0881	.7281	42.0	1.8223	1.5856
Households	1.0659	.3317	17.5		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Minnesota

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.3484	0.4943	28.3	2.8588	2.4297
Forestry and fishery products	1.6805	.2139	12.4	7.3174	3.8739
Mining:					
Coal mining	1.7363	.4803	35.9	1.7989	1.3975
Crude petroleum and natural gas	1.4876	.2029	6.1	2.0779	5.8357
Miscellaneous mining	2.1417	.5943	22.8	2.0669	2.7082
Construction:					
New construction	2.2478	.7085	32.7	2.2518	2.4173
Maintenance and repair construction	2.2004	.7979	33.5	1.8329	2.1664
Manufacturing:					
Food and kindred products and tobacco	2.8534	.5153	25.1	5.7573	7.8064
Textile mill products	1.7837	.4930	24.2	1.9160	1.9249
Apparel	1.7008	.4726	33.0	1.8105	1.4825
Paper and allied products	1.9674	.4548	16.3	2.3646	3.5099
Printing and publishing	2.1615	.6246	28.6	2.1515	2.2258
Chemicals and petroleum refining	1.5194	.2401	9.5	2.6068	3.3960
Rubber and leather products	1.9367	.5080	23.1	2.0514	2.1596
Lumber and wood products and furniture	2.0311	.5801	25.3	2.1381	2.3333
Stone, clay, and glass products	1.9791	.5545	26.4	2.0787	2.0447
Primary metal industries	1.9215	.5393	23.3	2.0481	2.2481
Fabricated metal products	1.9657	.5902	23.7	1.9802	2.4062
Machinery, except electrical	2.2756	.6718	26.3	2.3869	3.0907
Electric and electronic equipment	2.2516	.7023	30.2	2.1976	2.4561
Motor vehicles and equipment	1.9194	.4261	16.8	2.7903	3.6495
Transportation equipment, except motor vehicles	2.0464	.5820	26.0	2.1868	2.2917
Instruments and related products	2.0612	.6498	26.1	1.9724	2.4338
Miscellaneous manufacturing industries	1.9540	.5069	23.9	2.3001	2.3308
Transportation and public utilities:*					
Transportation	2.0539	.7078	29.2	1.8108	2.1779
Communication	1.7000	.5088	20.7	1.7330	2.1934
Electric, gas, water, and sanitary services	1.4686	.2078	7.6	2.4491	3.6915
Wholesale and retail trade:					
Wholesale trade	1.9075	.6853	27.1	1.6776	2.1477
Retail trade	2.1514	.8247	52.2	1.7063	1.5234
Finance, insurance, and real estate:					
Finance	2.2694	.8108	34.4	2.0413	2.4764
Insurance	2.7737	.9912	43.1	2.4632	2.8914
Real estate	1.2830	.1031	5.0	5.9232	4.9083
Services:					
Hotels and lodging places and amusements	2.0391	.6315	46.6	1.9561	1.5288
Personal services	2.1028	.8345	55.2	1.6646	1.4533
Business services	2.1321	.8830	42.8	1.6750	1.7562
Eating and drinking places	2.3441	.6572	55.8	2.1157	1.4442
Health services	2.1527	.9358	42.3	1.5730	1.7132
Miscellaneous services	2.2213	.6394	36.6	2.3472	1.8992
Households	1.2681	.3781	20.6	.....	.....

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Mississippi

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.3913	0.4487	31.4	2.8684	2.3468
Forestry and fishery products	2.0012	.3194	18.4	3.8008	4.0083
Mining:					
Coal mining	1.0000	0	0	0	0
Crude petroleum and natural gas	1.5042	.1948	11.6	1.9802	1.9241
Miscellaneous mining	1.8793	.5004	28.1	1.7555	1.7880
Construction:					
New construction	2.1638	.6328	36.7	2.1414	2.0520
Maintenance and repair construction	2.2131	.7777	44.5	1.7465	1.7801
Manufacturing:					
Food and kindred products and tobacco	2.8156	.4789	30.3	4.6253	4.6838
Textile mill products	1.9046	.4514	26.1	2.0216	2.0187
Apparel	2.0129	.5377	41.3	2.0296	1.7222
Paper and allied products	2.3868	.5150	23.4	2.7138	3.8230
Printing and publishing	2.1179	.5986	33.1	1.9521	1.9529
Chemicals and petroleum refining	2.0458	.2554	12.3	3.9043	6.3110
Rubber and leather products	2.1026	.4874	25.9	2.0409	2.1205
Lumber and wood products and furniture	2.4446	.6163	35.5	2.4822	2.4803
Stone, clay, and glass products	2.1677	.5636	30.8	2.1556	2.1956
Primary metal industries	1.9373	.4418	21.9	2.2368	2.5253
Fabricated metal products	1.9446	.5046	25.4	2.0298	2.2676
Machinery, except electrical	2.0399	.5546	27.9	2.0875	2.3289
Electric and electronic equipment	2.0598	.5753	29.9	2.0348	2.2172
Motor vehicles and equipment	2.0455	.5129	31.2	2.1807	2.0591
Transportation equipment, except motor vehicles	2.0758	.6722	30.6	1.7963	2.2578
Instruments and related products	2.0698	.5949	33.1	2.0072	2.0502
Miscellaneous manufacturing industries	2.1569	.5536	29.5	2.2623	2.4259
Transportation and public utilities: *					
Transportation	2.2432	.7207	36.3	1.8916	2.1437
Communication	1.6485	.4830	22.3	1.6333	2.0300
Electric, gas, water, and sanitary services	1.9867	.2659	12.0	3.2812	5.4638
Wholesale and retail trade:					
Wholesale trade	1.8425	.6483	32.1	1.5755	1.8141
Retail trade	2.0564	.7761	56.6	1.5940	1.4532
Finance, insurance, and real estate:					
Finance	1.9223	.6410	35.3	1.7575	1.8485
Insurance	2.3219	.8453	41.0	1.9924	2.3504
Real estate	1.1696	.0625	3.8	5.2123	4.0015
Services:					
Hotels and lodging places and amusements	1.9564	.5944	56.2	1.7692	1.3726
Personal services	2.0345	.7416	63.8	1.6347	1.3782
Business services	1.9816	.8172	39.5	1.5511	1.7780
Eating and drinking places	2.1597	.5940	57.6	1.8985	1.4118
Health services	2.0853	.8945	42.3	1.4936	1.7320
Miscellaneous services	2.0927	.6406	44.9	1.8864	1.6693
Households	1.2157	.3428	21.7	.....	.....

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Missouri

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.4367	0.5086	44.8	2.9911	1.9927
Forestry and fishery products	1.7339	.3833	42.5	2.2052	1.3455
Mining:					
Coal mining	1.8237	.4867	16.1	1.8912	3.2668
Crude petroleum and natural gas	1.4983	.1976	7.0	2.0990	3.9120
Miscellaneous mining	2.0205	.5620	23.4	1.9684	2.4506
Construction:					
New construction	2.3523	.7060	34.8	2.3705	2.4219
Maintenance and repair construction	2.2947	.7922	36.5	1.9012	2.1279
Manufacturing:					
Food and kindred products and tobacco	2.5125	.4641	25.1	4.5543	6.7032
Textile mill products	1.8454	.4201	22.8	2.2514	2.1224
Apparel	1.8642	.5038	32.7	1.9757	1.7318
Paper and allied products	1.6507	.3640	15.1	2.0229	2.5060
Printing and publishing	1.9562	.5561	25.2	2.0109	2.2717
Chemicals and petroleum refining	2.0319	.4263	16.4	2.8458	4.5778
Rubber and leather products	2.1102	.5627	29.6	2.2144	2.1113
Lumber and wood products and furniture	2.0917	.5796	30.2	2.1920	2.0969
Stone, clay, and glass products	2.2428	.5809	26.0	2.4292	2.6691
Primary metal industries	2.3352	.5604	23.3	2.7136	3.3220
Fabricated metal products	2.1816	.5692	25.1	2.3526	2.6353
Machinery, except electrical	2.2018	.6403	28.3	2.1830	2.4856
Electric and electronic equipment	2.3223	.6605	29.7	2.3548	2.6608
Motor vehicles and equipment	2.1879	.4387	17.9	3.5780	5.1787
Transportation equipment, except motor vehicles	1.9410	.5583	21.7	1.9808	2.7279
Instruments and related products	2.0444	.6090	25.9	1.9811	2.4164
Miscellaneous manufacturing industries	2.1996	.5752	31.4	2.4790	2.2080
Transportation and public utilities: *					
Transportation	2.0440	.6952	30.5	1.8467	2.1679
Communication	1.7528	.5046	20.0	1.7835	2.4008
Electric, gas, water, and sanitary services	1.7222	.2440	9.5	3.0815	4.5339
Wholesale and retail trade:					
Wholesale trade	1.9214	.6655	27.8	1.6903	2.1242
Retail trade	2.1607	.7977	51.2	1.7122	1.5437
Finance, insurance, and real estate:					
Finance	2.2480	.7740	35.0	2.0143	2.3476
Insurance	2.6937	.9353	42.2	2.3671	2.7665
Real estate	1.2850	.0998	5.1	6.0529	5.2169
Services:					
Hotels and lodging places and amusements	2.0502	.6079	42.9	1.9637	1.6007
Personal services	2.1650	.8010	61.6	1.7339	1.4230
Business services	2.1392	.8588	42.1	1.6739	1.7847
Eating and drinking places	2.3619	.6434	55.3	2.1491	1.4873
Health services	2.2370	.9185	43.1	1.6083	1.7525
Miscellaneous services	2.2030	.6728	39.9	2.0280	1.7922
Households	1.3750	.3962	22.3	.....	.....

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Montana

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.4045	0.4345	26.7	2.8901	2.7323
Forestry and fishery products	1.6752	.1734	11.2	10.2907	6.4524
Mining:					
Coal mining	1.7569	.4715	17.1	1.7533	2.7151
Crude petroleum and natural gas	1.4511	.1824	8.5	1.8547	2.4425
Miscellaneous mining	2.0217	.5844	25.2	1.7759	2.3760
Construction:					
New construction	1.6965	.4952	29.0	1.7072	1.7473
Maintenance and repair construction	1.8648	.7057	38.1	1.5558	1.6884
Manufacturing:					
Food and kindred products and tobacco	2.3602	.3963	21.8	3.4548	3.9841
Textile mill products	1.5765	.3898	17.9	1.7715	2.2594
Apparel	1.4855	.3925	28.1	1.5886	1.4730
Paper and allied products	2.2075	.4506	19.2	2.5467	4.0094
Printing and publishing	1.7026	.5317	33.1	1.6465	1.6238
Chemicals and petroleum refining	2.0559	.1995	9.1	6.0417	8.8868
Rubber and leather products	1.5965	.4154	24.6	1.6511	1.6479
Lumber and wood products and furniture	2.5796	.5717	28.9	2.6583	3.1082
Stone, clay, and glass products	2.0969	.5044	25.6	2.3650	2.4437
Primary metal industries	2.2823	.4768	18.5	2.5511	4.2062
Fabricated metal products	1.6759	.4949	24.6	1.6902	1.9431
Machinery, except electrical	1.6370	.5009	34.5	1.6188	1.5019
Electric and electronic equipment	1.6532	.5286	28.3	1.5963	1.7294
Motor vehicles and equipment	1.5467	.3825	19.5	1.7474	1.9530
Transportation equipment, except motor vehicles	1.8084	.4789	28.9	1.9461	1.8870
Instruments and related products	1.6604	.5259	30.5	1.6252	1.6892
Miscellaneous manufacturing industries	1.7261	.4454	30.2	1.8986	1.7133
Transportation and public utilities: *					
Transportation	2.0396	.7183	33.3	1.6631	2.0224
Communication	1.5322	.4574	20.8	1.5464	1.9967
Electric, gas, water, and sanitary services	1.9483	.2890	12.1	3.2536	4.8659
Wholesale and retail trade:					
Wholesale trade	1.7209	.6241	31.2	1.5168	1.7865
Retail trade	1.9232	.7515	54.4	1.5436	1.4557
Finance, insurance, and real estate:					
Finance	1.8460	.6373	33.5	1.7232	1.9676
Insurance	2.1215	.8259	45.2	1.8250	2.0209
Real estate	1.1529	.0599	3.9	4.5512	3.4272
Services:					
Hotels and lodging places and amusements	1.7722	.5369	55.8	1.6814	1.3177
Personal services	1.8219	.7355	62.8	1.4960	1.3309
Business services	1.8133	.7771	46.6	1.4753	1.5277
Eating and drinking places	1.8029	.5297	55.4	1.6928	1.3077
Health services	1.8749	.8459	42.6	1.4222	1.5954
Miscellaneous services	1.7826	.5915	44.7	1.6550	1.4986
Households	1.0409	.3092	20.4		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Nebraska

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.4857	0.4631	25.1	3.3197	3.2906
Forestry and fishery products	1.7842	.2020	11.2	12.2205	9.9791
Mining:					
Coal mining	1.0000	0	0	0	0
Crude petroleum and natural gas	1.4280	.1830	9.5	1.8967	2.0813
Miscellaneous mining	1.6169	.4681	24.3	1.6365	1.7875
Construction:					
New construction	2.0215	.6385	33.1	2.0578	2.2920
Maintenance and repair construction	1.9599	.7202	37.7	1.6979	1.8462
Manufacturing:					
Food and kindred products and tobacco	3.0597	.4978	26.1	6.0845	6.7942
Textile mill products	1.7107	.4679	29.2	1.8686	1.7426
Apparel	1.5814	.4307	33.0	1.6968	1.4685
Paper and allied products	1.5493	.3733	17.3	1.7982	2.0911
Printing and publishing	1.7453	.5380	29.1	1.7443	1.8259
Chemicals and petroleum refining	1.8811	.4215	19.0	2.5812	3.5355
Rubber and leather products	1.7820	.4824	23.3	1.8379	2.0942
Lumber and wood products and furniture	1.7622	.4905	25.6	1.9161	2.0056
Stone, clay, and glass products	1.9712	.5441	29.0	2.1112	2.1465
Primary metal industries	1.7486	.4511	19.4	1.9681	2.5701
Fabricated metal products	1.8227	.4785	22.9	2.0284	2.2769
Machinery, except electrical	1.8635	.5100	23.7	2.0445	2.4103
Electric and electronic equipment	2.0029	.5967	27.8	2.0601	2.4300
Motor vehicles and equipment	1.8530	.4729	24.3	2.0923	2.1992
Transportation equipment, except motor vehicles	1.8929	.5211	25.2	2.0831	2.3515
Instruments and related products	1.8314	.5679	29.0	1.7865	1.9380
Miscellaneous manufacturing industries	1.8522	.5080	30.2	2.0494	1.9364
Transportation and public utilities:*					
Transportation	1.9156	.6955	29.7	1.7254	2.1969
Communication	1.6124	.4765	20.6	1.6434	2.1464
Electric, gas, water, and sanitary services	1.8892	.1866	8.7	2.8662	3.4577
Wholesale and retail trade:					
Wholesale trade	1.7808	.6413	31.0	1.5895	1.8703
Retail trade	1.9547	.7626	55.7	1.5973	1.4538
Finance, insurance, and real estate:					
Finance	2.0342	.6973	35.0	1.9135	2.1972
Insurance	2.6101	.9331	47.3	2.3346	2.6649
Real estate	1.2319	.0855	4.9	5.5005	4.8062
Services:					
Hotels and lodging places and amusements	1.8264	.5566	58.7	1.8044	1.3373
Personal services	1.8725	.7472	58.6	1.5451	1.3715
Business services	1.9544	.8018	44.7	1.5984	1.6677
Eating and drinking places	2.1276	.5917	59.4	1.9283	1.3705
Health services	2.0119	.8798	43.7	1.5089	1.6762
Miscellaneous services	1.9378	.4665	27.0	2.1914	2.0850
Households	1.1402	.3373	21.1	.....	.....

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Nevada

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	1.6710	0.3792	21.0	1.8750	1.7139
Forestry and fishery products	1.3429	.3265	8.1	1.5177	2.8681
Mining:					
Coal mining	1.0000	0	0	0	0
Crude petroleum and natural gas	1.4053	.1780	5.1	1.8533	3.6510
Miscellaneous mining	1.7843	.5484	19.0	1.6224	2.0201
Construction:					
New construction	1.7353	.5604	21.6	1.8044	2.1590
Maintenance and repair construction	1.6805	.6400	26.1	1.5163	1.6697
Manufacturing:					
Food and kindred products and tobacco	1.5420	.2711	12.3	2.1628	2.3001
Textile mill products	1.4295	.3821	18.1	1.5293	1.5306
Apparel	1.3942	.3696	24.2	1.5008	1.3228
Paper and allied products	1.4036	.3459	17.6	1.5666	1.4892
Printing and publishing	1.5606	.4862	23.4	1.5832	1.5684
Chemicals and petroleum refining	1.5829	.3512	13.5	1.8893	2.1473
Rubber and leather products	1.4471	.3704	18.5	1.5624	1.4986
Lumber and wood products and furniture	1.5049	.4408	21.6	1.5659	1.5245
Stone, clay, and glass products	1.8121	.4295	16.6	2.1173	2.3343
Primary metal industries	1.6915	.3466	12.3	2.4229	2.9023
Fabricated metal products	1.5034	.4235	17.9	1.5815	1.6601
Machinery, except electrical	1.5599	.4874	21.0	1.5691	1.6409
Electric and electronic equipment	1.5610	.4835	23.1	1.5738	1.5507
Motor vehicles and equipment	1.4649	.3577	15.3	1.6624	1.7679
Transportation equipment, except motor vehicles	1.5377	.4814	20.4	1.5408	1.6242
Instruments and related products	1.5552	.5289	21.2	1.4927	1.6395
Miscellaneous manufacturing industries	1.6127	.4258	17.5	1.8625	2.1316
Transportation and public utilities: *					
Transportation	1.6596	.6306	26.0	1.5127	1.6441
Communication	1.4772	.4374	17.3	1.5143	1.6872
Electric, gas, water, and sanitary services	1.4879	.1897	6.5	2.2782	3.0610
Wholesale and retail trade:					
Wholesale trade	1.6179	.5965	23.4	1.4842	1.6849
Retail trade	1.8068	.7158	39.5	1.5053	1.4255
Finance, insurance, and real estate:					
Finance	1.7747	.6247	27.3	1.6807	1.7883
Insurance	1.9545	.7617	30.9	1.7245	1.9163
Real estate	1.2733	.0994	4.7	4.0762	3.6234
Services:					
Hotels and lodging places and amusements	1.7339	.5265	26.1	1.6816	1.6117
Personal services	1.6953	.6718	40.4	1.4747	1.3535
Business services	1.7780	.7729	33.8	1.4925	1.5646
Eating and drinking places	1.6102	.4865	39.8	1.5921	1.2691
Health services	1.7643	.8250	28.6	1.3813	1.6099
Miscellaneous services	1.6693	.5324	30.0	1.6451	1.5087
Households .....	.8293	.2549	12.7		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

New Hampshire

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	1.7444	0.5391	35.8	1.7915	1.5229
Forestry and fishery products	1.4888	.1882	10.2	8.5791	8.9367
Mining:					
Coal mining	1.0000	0	0	0	0
Crude petroleum and natural gas	1.0000	0	0	0	0
Miscellaneous mining	1.7588	.5238	22.0	1.8015	2.0262
Construction:					
New construction	2.1930	.7224	31.5	2.3279	2.6703
Maintenance and repair construction	2.0272	.7732	33.7	1.7908	2.0031
Manufacturing:					
Food and kindred products and tobacco	1.6233	.2957	12.8	2.8252	3.5076
Textile mill products	2.0396	.5308	23.8	2.4129	2.5588
Apparel	2.1015	.5931	32.6	2.2198	1.9204
Paper and allied products	1.8395	.4273	16.9	2.3445	3.0384
Printing and publishing	2.0460	.6069	28.1	2.1139	2.1446
Chemicals and petroleum refining	1.6269	.3498	14.4	2.3076	2.7091
Rubber and leather products	1.9816	.5522	24.4	2.1243	2.2511
Lumber and wood products and furniture	2.1449	.6059	31.9	2.3704	2.2131
Stone, clay, and glass products	1.8346	.5506	25.4	1.9520	2.0056
Primary metal industries	1.8560	.5100	20.4	2.1107	2.4971
Fabricated metal products	1.8000	.5412	23.1	1.9324	2.1140
Machinery, except electrical	2.1403	.6710	25.2	2.2440	2.9091
Electric and electronic equipment	2.0528	.6918	27.9	1.9917	2.3166
Motor vehicles and equipment	1.7501	.4476	18.9	2.1566	2.4180
Transportation equipment, except motor vehicles	1.8161	.5772	23.4	1.8613	2.1738
Instruments and related products	1.9945	.6488	26.5	1.9782	2.2974
Miscellaneous manufacturing industries	1.9507	.5352	27.8	2.2989	2.0733
Transportation and public utilities: *					
Transportation	1.9228	.8001	37.1	1.6516	1.7423
Communication	1.6257	.5023	19.1	1.6986	2.1358
Electric, gas, water, and sanitary services	1.3867	.2197	8.7	2.3929	3.0768
Wholesale and retail trade:					
Wholesale trade	1.7865	.6689	26.7	1.6256	1.9573
Retail trade	2.0306	.8132	48.0	1.6702	1.5240
Finance, insurance, and real estate:					
Finance	2.1152	.7703	33.8	2.0149	2.2560
Insurance	2.6042	.9729	41.1	2.3675	2.7337
Real estate	1.3079	.1158	5.5	5.6268	5.1538
Services:					
Hotels and lodging places and amusements	1.7980	.5325	36.9	1.8692	1.4957
Personal services	2.0068	.8253	50.6	1.6527	1.4799
Business services	2.0146	.8825	39.2	1.6436	1.7739
Eating and drinking places	1.9059	.5838	44.0	1.8658	1.4159
Health services	2.0333	.9269	40.3	1.5449	1.6805
Miscellaneous services	1.9407	.6521	36.7	1.8764	1.7015
Households	1.1135	.3632	19.0		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

New Jersey

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.1186	0.6802	35.7	1.9174	1.6061
Forestry and fishery products	1.9399	.4686	19.8	2.3187	2.0470
Mining:					
Coal mining	1.0000	0	0	0	0
Crude petroleum and natural gas	1.5368	.2193	6.5	2.2292	3.5679
Miscellaneous mining	1.9518	.5513	18.5	1.9662	2.3056
Construction:					
New construction	2.4210	.7571	27.9	2.4896	2.7595
Maintenance and repair construction	2.3448	.8324	29.4	1.9528	2.2397
Manufacturing:					
Food and kindred products and tobacco	1.9722	.4122	14.5	3.1496	3.7349
Textile mill products	2.1767	.5388	20.2	2.5289	2.6290
Apparel	2.3330	.6407	29.5	2.4282	2.0723
Paper and allied products	1.8791	.4162	14.8	2.3524	2.5971
Printing and publishing	2.1046	.6305	24.0	2.0979	2.1647
Chemicals and petroleum refining	1.8394	.3386	10.9	3.0345	4.2074
Rubber and leather products	2.2665	.5842	22.6	2.3300	2.2347
Lumber and wood products and furniture	2.1020	.6014	23.5	2.2005	2.1590
Stone, clay, and glass products	2.1911	.6259	23.3	2.1805	2.2486
Primary metal industries	2.0634	.5123	17.3	2.4730	2.8847
Fabricated metal products	2.0891	.5643	20.3	2.2874	2.4411
Machinery, except electrical	2.2423	.6872	23.8	2.2128	2.4969
Electric and electronic equipment	2.2506	.7063	24.1	2.1601	2.4915
Motor vehicles and equipment	1.8695	.3935	13.4	2.9839	3.6730
Transportation equipment, except motor vehicles	1.9984	.6259	22.5	1.9283	2.0804
Instruments and related products	2.1287	.6171	20.5	2.1704	2.6479
Miscellaneous manufacturing industries	2.3175	.6168	24.2	2.6799	2.5767
Transportation and public utilities: *					
Transportation	2.3909	.8176	31.0	2.0620	2.1499
Communication	1.7805	.5383	16.7	1.8208	2.3442
Electric, gas, water, and sanitary services	1.5927	.2627	8.6	2.8940	3.8339
Wholesale and retail trade:					
Wholesale trade	1.9829	.7134	24.2	1.7337	2.0415
Retail trade	2.2455	.8574	42.2	1.7609	1.5626
Finance, insurance, and real estate:					
Finance	2.4172	.8730	32.0	2.1440	2.3437
Insurance	2.9140	1.0510	35.0	2.5646	3.1088
Real estate	1.3536	.1263	4.8	6.0895	5.8306
Services:					
Hotels and lodging places and amusements	2.1456	.6592	30.1	2.0784	1.8272
Personal services	2.1531	.8186	46.1	1.7400	1.4431
Business services	2.2209	.9054	33.0	1.7482	1.8954
Eating and drinking places	2.1472	.6419	39.0	2.0516	1.4879
Health services	2.3041	.9788	36.1	1.6320	1.7390
Miscellaneous services	2.1817	.7048	34.4	2.0324	1.7202
Households	1.3331	.4034	17.1		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

New Mexico

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.4472	0.4490	26.0	3.0291	2.8939
Forestry and fishery products	1.7586	.1953	11.2	11.5851	8.4047
Mining:					
Coal mining	1.8519	.4925	16.6	1.8311	3.0071
Crude petroleum and natural gas	1.4974	.1937	9.0	1.9692	2.4086
Miscellaneous mining	2.1476	.5484	23.0	1.9596	2.5841
Construction:					
New construction	1.8393	.5330	25.0	1.8698	2.2058
Maintenance and repair construction	1.9643	.7164	38.9	1.6127	1.6756
Manufacturing:					
Food and kindred products and tobacco	2.1084	.3795	21.5	2.8314	2.7887
Textile mill products	1.7229	.4599	26.9	1.7888	1.7594
Apparel	1.5867	.4325	29.2	1.6342	1.5131
Paper and allied products	1.5486	.3324	16.8	1.7596	1.8711
Printing and publishing	1.7523	.5407	32.3	1.6825	1.6277
Chemicals and petroleum refining	2.0956	.2104	9.6	5.7448	7.6217
Rubber and leather products	1.6468	.4581	27.6	1.6625	1.5949
Lumber and wood products and furniture	1.8967	.4820	27.0	1.9845	1.9704
Stone, clay, and glass products	2.1567	.5419	27.6	2.2943	2.3268
Primary metal industries	2.5849	.4360	18.4	4.9511	6.3525
Fabricated metal products	1.6781	.4686	24.1	1.7040	1.8087
Machinery, except electrical	1.7303	.5003	23.0	1.7440	2.0307
Electric and electronic equipment	1.9988	.6532	29.1	1.8350	2.1878
Motor vehicles and equipment	1.4958	.2607	12.5	2.1953	2.4562
Transportation equipment, except motor vehicles	1.7846	.5569	22.4	1.7198	2.2979
Instruments and related products	1.7709	.5552	24.4	1.6866	2.0524
Miscellaneous manufacturing industries	1.5890	.3785	25.0	1.7896	1.6043
Transportation and public utilities: *					
Transportation	2.0828	.6808	31.1	1.7335	2.0509
Communication	1.6012	.4732	22.2	1.6000	1.8989
Electric, gas, water, and sanitary services	2.2690	.2909	12.0	3.8241	5.6623
Wholesale and retail trade:					
Wholesale trade	1.8078	.6450	31.0	1.5674	1.8037
Retail trade	2.0401	.7763	52.9	1.5945	1.4764
Finance, insurance, and real estate:					
Finance	1.9665	.6831	35.1	1.7820	1.9269
Insurance	2.1819	.8141	41.3	1.8668	2.0770
Real estate	1.2300	.0841	4.9	4.8479	4.1251
Services:					
Hotels and lodging places and amusements	1.8286	.5263	45.1	1.7663	1.4090
Personal services	1.9222	.7501	57.0	1.5435	1.3731
Business services	1.9919	.8219	40.2	1.5828	1.7657
Eating and drinking places	1.8640	.5458	51.8	1.7445	1.3410
Health services	2.0044	.8799	41.8	1.4668	1.6436
Miscellaneous services	1.9626	.6219	41.1	1.7883	1.6341
Households	1.1367	.3254	20.0		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

New York

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	1.6286	0.3666	24.3	1.8400	1.3910
Forestry and fishery products	1.5163	.3013	17.7	2.0072	1.4816
Mining:					
Coal mining	1.0000	0	0	0	0
Crude petroleum and natural gas	1.4544	.1825	4.9	1.9921	3.3496
Miscellaneous mining	1.7233	.4522	15.4	1.7575	1.9011
Construction:					
New construction	1.9490	.5847	22.9	1.9894	1.9483
Maintenance and repair construction	1.9160	.6708	23.9	1.6666	1.8154
Manufacturing:					
Food and kindred products and tobacco	1.7827	.3175	12.0	2.7614	3.2258
Textile mill products	1.6988	.4074	16.9	1.9014	1.8184
Apparel	2.0044	.5223	23.3	2.1049	1.9325
Paper and allied products	1.6959	.3599	12.7	2.0074	2.1419
Printing and publishing	1.9555	.5190	17.8	2.0964	2.3217
Chemicals and petroleum refining	1.5541	.2590	8.1	2.3671	2.9113
Rubber and leather products	1.8028	.4518	19.0	1.9207	1.7733
Lumber and wood products and furniture	1.7822	.4895	21.1	1.8714	1.7023
Stone, clay, and glass products	1.8387	.4857	17.7	1.9186	1.9797
Primary metal industries	1.8627	.4107	13.4	2.2494	2.5564
Fabricated metal products	1.8269	.4989	18.5	1.8789	1.8887
Machinery, except electrical	1.9767	.5560	18.1	2.0485	2.3505
Electric and electronic equipment	2.0237	.6132	20.9	1.9469	2.1188
Motor vehicles and equipment	1.8636	.4447	14.4	2.1512	2.5595
Transportation equipment, except motor vehicles	1.8368	.5280	16.5	1.8576	2.2020
Instruments and related products	1.7436	.4415	13.8	1.9515	2.3601
Miscellaneous manufacturing industries	1.8372	.4321	17.8	2.2074	1.9978
Transportation and public utilities: *					
Transportation	1.9119	.6575	24.7	1.6908	1.7445
Communication	1.7650	.4947	15.2	1.7949	2.3701
Electric, gas, water, and sanitary services	1.4212	.1941	6.1	2.3181	2.9124
Wholesale and retail trade:					
Wholesale trade	1.7730	.6105	19.8	1.5927	1.8393
Retail trade	2.0153	.7387	39.0	1.6286	1.4106
Finance, insurance, and real estate:					
Finance	2.0126	.6712	18.2	1.8774	2.7239
Insurance	2.5330	.8800	28.8	2.2422	2.5346
Real estate	1.3424	.1171	4.3	4.5294	4.4025
Services:					
Hotels and lodging places and amusements	2.0517	.5597	24.3	2.1541	1.9559
Personal services	1.9650	.7171	45.7	1.6323	1.3224
Business services	1.9799	.7922	25.8	1.5841	1.7930
Eating and drinking places	1.9443	.5410	35.1	1.8559	1.3729
Health services	2.0171	.8244	30.3	1.5003	1.5704
Miscellaneous services	2.1378	.7300	34.4	1.7531	1.5478
Households	1.0755	.3077	13.1		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

North Carolina

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	1.9988	0.4719	25.9	2.2106	2.0383
Forestry and fishery products	1.5082	.1635	8.8	9.0332	6.7032
Mining:					
Coal mining	1.0000	0	0	0	0
Crude petroleum and natural gas	1.0000	0	0	0	0
Miscellaneous mining	1.8244	.4833	20.4	1.9332	2.3337
Construction:					
New construction	2.2802	.7213	35.9	2.3075	2.4467
Maintenance and repair construction	2.1977	.8015	41.4	1.8556	1.8739
Manufacturing:					
Food and kindred products and tobacco	2.0528	.3655	17.2	3.5043	4.3629
Textile mill products	2.6844	.6576	33.4	3.1280	2.9187
Apparel	2.6725	.7089	43.8	2.7688	2.2345
Paper and allied products	2.2420	.5250	22.4	2.8137	3.6692
Printing and publishing	2.1578	.6401	31.9	2.0857	2.0799
Chemicals and petroleum refining	1.9251	.4647	18.4	2.4122	3.4891
Rubber and leather products	2.0113	.5361	25.1	2.1793	2.3139
Lumber and wood products and furniture	2.4150	.6842	36.6	2.5167	2.3905
Stone, clay, and glass products	2.0687	.5997	29.1	2.1071	2.1513
Primary metal industries	2.0558	.4905	21.1	2.5260	2.9766
Fabricated metal products	1.9145	.5426	25.5	2.0245	2.1544
Machinery, except electrical	2.1308	.6315	26.2	2.2036	2.7547
Electric and electronic equipment	2.1489	.6454	28.1	2.1708	2.5278
Motor vehicles and equipment	2.0592	.5071	23.0	2.5103	2.8158
Transportation equipment, except motor vehicles	2.1466	.5805	29.0	2.4108	2.4059
Instruments and related products	2.0199	.6114	28.9	1.9929	2.1310
Miscellaneous manufacturing industries	2.2023	.5971	32.4	2.4748	2.2453
Transportation and public utilities: *					
Transportation	1.9841	.7260	32.6	1.7726	2.0222
Communication	1.6871	.5072	21.1	1.7238	2.1549
Electric, gas, water, and sanitary services	1.4526	.2200	9.1	2.4961	3.6247
Wholesale and retail trade:					
Wholesale trade	1.8404	.6694	29.1	1.6352	1.9503
Retail trade	2.0402	.7956	52.3	1.6424	1.4841
Finance, insurance, and real estate:					
Finance	2.0297	.7085	33.5	1.8930	2.1100
Insurance	2.3578	.8634	38.5	2.0826	2.4375
Real estate	1.2706	.0995	5.2	5.6041	5.3389
Services:					
Hotels and lodging places and amusements	1.9206	.5836	44.7	1.8735	1.4845
Personal services	2.0595	.7888	53.5	1.6929	1.4848
Business services	2.0211	.8445	43.5	1.6229	1.6706
Eating and drinking places	2.1051	.6084	50.9	1.9543	1.4240
Health services	2.1215	.9298	40.3	1.5545	1.7809
Miscellaneous services	2.1159	.6973	41.2	1.9266	1.7579
Households	1.2053	.3655	20.4	.....	.....

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

North Dakota

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.1284	0.4439	29.9	2.2930	2.1341
Forestry and fishery products	1.7792	.2041	14.7	12.5242	5.7720
Mining:					
Coal mining	1.8335	.4738	17.8	1.8217	2.9762
Crude petroleum and natural gas	1.4741	.1816	9.2	1.9097	2.4264
Miscellaneous mining	1.7547	.4631	22.7	1.6302	2.0280
Construction:					
New construction	1.7017	.4747	28.1	1.7328	1.8355
Maintenance and repair construction	1.8687	.6827	38.8	1.5636	1.7198
Manufacturing:					
Food and kindred products and tobacco	2.4871	.4305	25.5	4.1531	4.9286
Textile mill products	1.8021	.4836	28.3	1.9538	2.0291
Apparel	1.5390	.4361	31.7	1.5467	1.4628
Paper and allied products	1.5005	.3423	17.3	1.6508	1.9311
Printing and publishing	1.7305	.5249	35.3	1.6437	1.6040
Chemicals and petroleum refining	2.0858	.2021	9.7	5.6852	8.8159
Rubber and leather products	1.6320	.3966	25.0	1.7182	1.6839
Lumber and wood products and furniture	1.6956	.4813	34.2	1.7094	1.5695
Stone, clay, and glass products	1.7901	.4626	29.2	1.8987	1.8020
Primary metal industries	1.0000	0	0	0	0
Fabricated metal products	1.6751	.4437	23.6	1.7622	1.9987
Machinery, except electrical	1.6989	.4488	21.6	1.8085	2.2314
Electric and electronic equipment	1.8718	.5679	30.0	1.7913	2.0482
Motor vehicles and equipment	1.5278	.2947	16.1	2.0826	2.2418
Transportation equipment, except motor vehicles	1.7794	.5880	26.8	1.6254	2.1527
Instruments and related products	1.7014	.4798	26.7	1.6938	1.8898
Miscellaneous manufacturing industries	1.4989	.2805	17.5	2.0527	1.9742
Transportation and public utilities: *					
Transportation	2.0526	.6777	33.6	1.6985	2.0612
Communication	1.5578	.4454	22.1	1.5569	1.9899
Electric, gas, water, and sanitary services	2.1708	.2806	12.1	3.7306	6.4581
Wholesale and retail trade:					
Wholesale trade	1.7591	.6088	30.0	1.5301	1.9323
Retail trade	1.9739	.7344	58.3	1.5598	1.4481
Finance, insurance, and real estate:					
Finance	1.8197	.5863	33.2	1.7162	1.9271
Insurance	2.2168	.7877	41.8	1.9379	2.3274
Real estate	1.1608	.0606	4.0	5.0643	3.8205
Services:					
Hotels and lodging places and amusements	1.8000	.5266	64.4	1.6820	1.2769
Personal services	1.8973	.7440	65.0	1.5087	1.3540
Business services	1.8753	.7759	48.0	1.4873	1.5648
Eating and drinking places	2.0399	.5579	63.3	1.8438	1.3384
Health services	1.9276	.8323	43.8	1.4381	1.6352
Miscellaneous services	2.0316	.5883	46.0	1.9084	1.6216
Households	1.1515	.3212	22.5	.....	.....

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Ohio

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.1748	0.5155	43.8	2.3861	1.6799
Forestry and fishery products	1.6296	.2574	18.5	3.1506	1.9382
Mining:					
Coal mining	2.1567	.5867	20.8	2.1977	3.2338
Crude petroleum and natural gas	1.5353	.2103	9.7	2.1539	2.3129
Miscellaneous mining	2.0720	.5545	23.6	2.0550	2.3481
Construction:					
New construction	2.5254	.7662	36.7	2.4784	2.4634
Maintenance and repair construction	2.4658	.8550	38.5	1.9677	2.1630
Manufacturing:					
Food and kindred products and tobacco	2.3333	.4448	22.3	4.0874	5.5599
Textile mill products	1.9891	.4642	21.2	2.2982	2.4294
Apparel	1.7768	.4768	26.9	1.8753	1.7148
Paper and allied products	2.3426	.5346	21.6	2.7286	3.3770
Printing and publishing	2.3407	.6535	29.1	2.2917	2.5081
Chemicals and petroleum refining	1.9009	.3079	12.1	3.2414	4.7084
Rubber and leather products	2.2108	.5434	23.0	2.2743	2.5818
Lumber and wood products and furniture	2.2356	.6289	30.1	2.2820	2.2476
Stone, clay, and glass products	2.3395	.6309	26.1	2.3397	2.7835
Primary metal industries	2.5658	.6729	25.8	2.7911	3.7743
Fabricated metal products	2.6019	.7260	29.5	2.6422	3.1064
Machinery, except electrical	2.5227	.7512	30.2	2.4098	2.9307
Electric and electronic equipment	2.4497	.6898	28.6	2.4770	2.8929
Motor vehicles and equipment	2.7356	.6357	24.3	3.8604	6.0117
Transportation equipment, except motor vehicles	2.4477	.7195	26.8	2.3857	3.3357
Instruments and related products	2.2033	.6795	29.6	2.0218	2.2539
Miscellaneous manufacturing industries	2.3311	.6058	28.4	2.5657	2.5568
Transportation and public utilities: *					
Transportation	2.3418	.8053	35.5	1.9304	2.1800
Communication	1.7647	.5187	20.7	1.7673	2.2596
Electric, gas, water, and sanitary services	1.9781	.3118	12.2	3.7404	5.1695
Wholesale and retail trade:					
Wholesale trade	1.9672	.6915	28.3	1.6931	2.1089
Retail trade	2.2279	.8321	54.5	1.7219	1.5091
Finance, insurance, and real estate:					
Finance	2.2424	.7813	35.9	1.9935	2.2422
Insurance	2.4624	.8657	38.0	2.1582	2.5394
Real estate	1.2680	.0954	4.8	6.0430	5.3360
Services:					
Hotels and lodging places and amusements	2.0424	.6159	44.5	1.9321	1.5352
Personal services	2.2029	.8351	57.7	1.7176	1.4593
Business services	2.1700	.8783	40.8	1.6812	1.8246
Eating and drinking places	2.2885	.6473	55.5	2.0844	1.4410
Health services	2.2481	.9461	42.9	1.5929	1.7439
Miscellaneous services	2.4107	.7605	46.0	2.1059	1.7540
Households	1.3559	.3923	21.6	.....	.....

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Oklahoma

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.4802	0.4242	24.5	3.0627	2.7298
Forestry and fishery products	1.6285	.1642	9.3	9.7406	6.3889
Mining:					
Coal mining	1.8357	.4774	18.8	1.7749	2.2711
Crude petroleum and natural gas	1.5199	.1941	9.4	1.9735	2.1554
Miscellaneous mining	1.9419	.4979	22.1	1.8188	2.0906
Construction:					
New construction	1.9064	.5219	25.4	1.8970	1.9867
Maintenance and repair construction	2.1677	.7587	38.3	1.6828	1.7499
Manufacturing:					
Food and kindred products and tobacco	2.3460	.4048	20.7	3.3732	3.5762
Textile mill products	1.6257	.2950	16.7	1.9804	1.8726
Apparel	1.7055	.4542	33.9	1.7193	1.4859
Paper and allied products	1.5967	.2831	11.8	2.0047	2.4906
Printing and publishing	1.8260	.5136	27.0	1.7485	1.7621
Chemicals and petroleum refining	2.1397	.2106	9.4	5.7956	8.8849
Rubber and leather products	1.7716	.4055	17.7	1.8624	2.1679
Lumber and wood products and furniture	1.8886	.4975	26.3	1.8801	1.8610
Stone, clay, and glass products	2.1970	.5582	25.0	2.0466	2.3027
Primary metal industries	1.9687	.4709	20.2	2.0771	2.4655
Fabricated metal products	1.9931	.5372	24.0	1.9784	2.2392
Machinery, except electrical	1.9999	.5367	23.2	2.0251	2.3741
Electric and electronic equipment	2.0025	.5757	24.6	1.9359	2.2935
Motor vehicles and equipment	2.0455	.3996	16.6	2.9240	3.8178
Transportation equipment, except motor vehicles	1.9207	.6113	24.2	1.7224	2.2036
Instruments and related products	1.8403	.5427	24.3	1.6994	1.9314
Miscellaneous manufacturing industries	1.9289	.5077	22.0	1.9586	2.3873
Transportation and public utilities: *					
Transportation	2.1120	.5928	26.0	1.7902	2.1257
Communication	1.6857	.4869	19.3	1.6465	2.1757
Electric, gas, water, and sanitary services	2.2565	.2696	11.4	3.6241	5.0973
Wholesale and retail trade:					
Wholesale trade	1.8721	.6468	28.5	1.5720	1.8589
Retail trade	2.1117	.7765	51.8	1.5950	1.4576
Finance, insurance, and real estate:					
Finance	2.0262	.6734	34.9	1.7922	1.8688
Insurance	2.4437	.8803	41.8	2.0410	2.2976
Real estate	1.2054	.0726	4.1	4.2061	3.5438
Services:					
Hotels and lodging places and amusements	1.8955	.5347	44.6	1.7665	1.4013
Personal services	2.0434	.7417	52.6	1.6122	1.4248
Business services	2.0471	.8463	43.0	1.5430	1.6228
Eating and drinking places	2.0313	.5678	50.5	1.8147	1.3668
Health services	2.0815	.8809	42.2	1.4701	1.5899
Miscellaneous services	2.4035	.5289	30.3	2.8161	2.3042
Households	1.2186	.3266	19.0		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Oregon

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.0728	0.5218	29.1	2.3283	2.1644
Forestry and fishery products	1.8028	.2609	14.4	7.9397	6.0831
Mining:					
Coal mining	1.6650	.4652	15.0	1.7535	2.9941
Crude petroleum and natural gas	1.4586	.1962	6.7	2.0225	4.1832
Miscellaneous mining	1.7990	.5175	23.2	1.8515	2.0734
Construction:					
New construction	2.2060	.7049	35.4	2.2536	2.2778
Maintenance and repair construction	2.1114	.7830	36.1	1.7927	1.9776
Manufacturing:					
Food and kindred products and tobacco	2.2063	.4607	23.1	3.5580	3.5594
Textile mill products	1.6591	.4403	21.8	1.8563	1.9257
Apparel	1.6827	.4676	29.4	1.8193	1.5955
Paper and allied products	2.0783	.4608	17.5	2.7021	4.1294
Printing and publishing	2.1337	.6307	29.9	2.0828	2.1426
Chemicals and petroleum refining	1.7233	.3846	16.5	2.3555	2.8350
Rubber and leather products	1.7713	.4749	22.7	1.9481	2.0059
Lumber and wood products and furniture	2.6854	.6365	28.5	3.0216	3.5390
Stone, clay, and glass products	2.0672	.5799	28.5	2.2529	2.2251
Primary metal industries	1.9496	.5076	19.6	2.2268	3.0582
Fabricated metal products	2.0033	.5770	25.2	2.1109	2.3403
Machinery, except electrical	2.0582	.6276	25.9	2.1164	2.5676
Electric and electronic equipment	2.1830	.7275	29.9	2.0866	2.5392
Motor vehicles and equipment	1.7547	.3602	15.0	2.7363	3.4026
Transportation equipment, except motor vehicles	2.0713	.6038	25.8	2.1446	2.5073
Instruments and related products	1.9783	.6308	27.4	1.9638	2.2798
Miscellaneous manufacturing industries	2.0151	.5350	29.4	2.3522	2.0563
Transportation and public utilities: *					
Transportation	2.0538	.7384	31.8	1.8886	2.2199
Communication	1.6601	.5011	19.3	1.7177	2.3898
Electric, gas, water, and sanitary services	1.5401	.2508	9.7	2.6825	3.9939
Wholesale and retail trade:					
Wholesale trade	1.8117	.6623	28.2	1.6318	1.9828
Retail trade	2.0402	.7973	49.8	1.6603	1.5312
Finance, insurance, and real estate:					
Finance	2.1084	.7631	35.9	1.9325	2.1559
Insurance	2.4892	.9125	41.6	2.2295	2.5698
Real estate	1.2596	.0959	5.0	5.1591	4.2762
Services:					
Hotels and lodging places and amusements	1.9131	.5875	48.1	1.8845	1.4415
Personal services	1.9232	.7537	52.0	1.6287	1.4270
Business services	2.0138	.8445	43.3	1.6432	1.6946
Eating and drinking places	2.1334	.6247	53.6	2.0241	1.4351
Health services	2.0403	.9107	39.9	1.5351	1.7364
Miscellaneous services	2.0319	.6996	43.1	1.8117	1.6172
Households	1.1615	.3616	20.2		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Pennsylvania

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.0642	0.4625	28.6	2.4800	1.8490
Forestry and fishery products	1.5420	.1743	8.8	10.0791	5.8637
Mining:					
Coal mining	2.1706	.5979	20.6	2.2230	3.0166
Crude petroleum and natural gas	1.5697	.2244	8.1	2.2817	3.2449
Miscellaneous mining	2.0673	.5752	22.5	2.0651	2.3929
Construction:					
New construction	2.5972	.8025	33.3	2.5956	2.8939
Maintenance and repair construction	2.4693	.8645	35.6	1.9871	2.2285
Manufacturing:					
Food and kindred products and tobacco	2.2167	.4409	19.6	3.4875	3.8749
Textile mill products	2.1438	.5079	24.6	2.4751	2.2855
Apparel	2.4027	.6526	36.8	2.4381	2.0583
Paper and allied products	2.1766	.4844	18.8	2.6729	3.1767
Printing and publishing	2.3677	.6819	29.2	2.2810	2.3838
Chemicals and petroleum refining	1.8107	.2806	10.2	3.3877	5.0197
Rubber and leather products	2.3383	.5926	25.8	2.3490	2.3395
Lumber and wood products and furniture	2.3165	.6486	29.2	2.3991	3.3266
Stone, clay, and glass products	2.4254	.6665	26.7	2.4033	2.6798
Primary metal industries	2.4919	.6540	23.8	2.7498	3.5720
Fabricated metal products	2.5697	.7194	28.6	2.6328	2.8552
Machinery, except electrical	2.5016	.7500	28.5	2.4343	2.9246
Electric and electronic equipment	2.5580	.7672	30.5	2.4257	2.7299
Motor vehicles and equipment	2.3980	.5967	23.2	3.0165	3.5630
Transportation equipment, except motor vehicles	2.4796	.7316	26.9	2.4504	3.1338
Instruments and related products	2.2886	.7173	28.1	2.1035	2.4416
Miscellaneous manufacturing industries	2.6167	.6965	28.1	2.9952	3.4792
Transportation and public utilities:*					
Transportation	2.3791	.8231	33.9	1.9700	2.1803
Communication	1.7735	.5302	19.8	1.7930	2.2593
Electric, gas, water, and sanitary services	2.1030	.3410	12.5	4.1497	5.6759
Wholesale and retail trade:					
Wholesale trade	2.0097	.7134	27.6	1.7338	2.0855
Retail trade	2.2847	.8614	51.2	1.7693	1.5328
Finance, insurance, and real estate:					
Finance	2.2605	.7763	32.3	2.0786	2.3252
Insurance	2.7386	.9724	39.3	2.4019	2.7868
Real estate	1.3055	.1096	4.9	6.8151	6.0906
Services:					
Hotels and lodging places and amusements	2.1388	.6549	43.0	2.0248	1.5685
Personal services	2.2797	.8650	54.9	1.7775	1.4769
Business services	2.2643	.9289	38.1	1.7385	1.9362
Eating and drinking places	2.3449	.6727	50.8	2.1500	1.4761
Health services	2.3442	.9794	40.5	1.6443	1.8031
Miscellaneous services	2.4133	.8040	42.7	2.0616	1.8006
Households	1.4114	.4166	20.7		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Rhode Island

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	1.7857	0.6766	32.2	1.6370	1.6999
Forestry and fishery products	1.7796	.4854	19.2	2.1879	2.7799
Mining:					
Coal mining	1.0000	0	0	0	0
Crude petroleum and natural gas	1.4279	.1926	5.0	1.9585	9.8219
Miscellaneous mining	1.5994	.4779	20.3	1.6406	1.8480
Construction:					
New construction	2.0057	.6669	30.1	2.1171	2.3568
Maintenance and repair construction	1.9284	.7385	31.3	1.7283	2.0008
Manufacturing:					
Food and kindred products and tobacco	1.5930	.3193	14.6	2.3045	2.3801
Textile mill products	2.1881	.5560	26.5	2.5635	2.6211
Apparel	2.1781	.6087	33.0	2.2727	2.0426
Paper and allied products	1.5315	.3697	16.8	1.7945	1.8972
Printing and publishing	1.6985	.5468	24.4	1.7413	1.8984
Chemicals and petroleum refining	1.7764	.3590	14.7	2.4395	2.9123
Rubber and leather products	1.9444	.5279	23.5	2.0528	2.1944
Lumber and wood products and furniture	1.7963	.5391	26.5	1.8918	1.8692
Stone, clay, and glass products	1.8134	.5542	23.8	1.8571	2.0553
Primary metal industries	1.8413	.4311	18.2	2.3009	2.5905
Fabricated metal products	1.8172	.5612	26.0	1.8534	1.9078
Machinery, except electrical	1.9609	.6385	27.2	1.9544	2.1905
Electric and electronic equipment	1.9528	.6557	27.3	1.8908	2.1524
Motor vehicles and equipment	1.7530	.4796	20.1	1.9686	2.3097
Transportation equipment, except motor vehicles	1.7797	.6134	25.5	1.7004	1.9285
Instruments and related products	1.8667	.6207	27.8	1.8266	1.9612
Miscellaneous manufacturing industries	1.8354	.4612	22.7	2.2752	2.1920
Transportation and public utilities: *					
Transportation	1.8390	.7490	34.2	1.6399	1.7528
Communication	1.5894	.4925	19.2	1.6647	2.0632
Electric, gas, water, and sanitary services	1.6899	.1999	7.9	2.6644	3.2728
Wholesale and retail trade:					
Wholesale trade	1.7039	.6475	27.1	1.5735	1.8200
Retail trade	1.9090	.7845	46.8	1.6113	1.4900
Finance, insurance, and real estate:					
Finance	2.0296	.7747	32.3	1.9138	2.2571
Insurance	2.4619	.9381	38.2	2.2744	2.7031
Real estate	1.2510	.1001	4.6	6.0786	5.3420
Services:					
Hotels and lodging places and amusements	1.7644	.5515	40.8	1.8120	1.4410
Personal services	1.8940	.7657	50.5	1.6166	1.4189
Business services	1.9062	.8534	39.7	1.5887	1.6785
Eating and drinking places	1.7812	.5567	43.7	1.7791	1.3759
Health services	1.9371	.8910	38.6	1.5046	1.6449
Miscellaneous services	1.9287	.7083	41.1	1.7462	1.5828
Households	1.0085	.3339	17.7		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

South Carolina

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	1.7895	0.4480	35.1	1.9437	1.5965
Forestry and fishery products	1.4909	.1585	9.7	9.0231	12.2709
Mining:					
Coal mining	1.6384	.4558	17.7	1.6946	2.3782
Crude petroleum and natural gas	1.0000	0	0	0	0
Miscellaneous mining	1.8595	.5301	24.5	1.8792	2.2048
Construction:					
New construction	2.2330	.7163	41.3	2.2268	2.0638
Maintenance and repair construction	2.1264	.7724	40.9	1.8019	1.8878
Manufacturing:					
Food and kindred products and tobacco	2.0783	.4134	24.2	3.2590	3.6929
Textile mill products	2.6755	.6330	32.8	3.1885	3.2682
Apparel	2.5716	.6690	44.3	2.6288	2.1188
Paper and allied products	2.2453	.5161	21.9	2.7174	3.9450
Printing and publishing	2.0530	.6091	32.2	1.9538	1.9454
Chemicals and petroleum refining	1.9276	.4574	18.3	2.2846	3.2906
Rubber and leather products	1.9837	.5033	22.6	2.1991	2.6193
Lumber and wood products and furniture	2.4270	.5761	31.9	2.6384	2.6847
Stone, clay, and glass products	2.0547	.5873	28.6	2.1124	2.2994
Primary metal industries	1.9988	.4812	20.9	2.4475	3.1273
Fabricated metal products	1.9916	.5531	26.3	2.0722	2.2851
Machinery, except electrical	2.0124	.6114	28.3	1.9922	2.3058
Electric and electronic equipment	2.1036	.6279	31.0	2.0836	2.2328
Motor vehicles and equipment	1.9845	.4830	24.1	2.3983	2.5492
Transportation equipment, except motor vehicles	1.9877	.6633	31.8	1.8044	2.0272
Instruments and related products	2.0390	.6054	30.1	1.9849	2.1524
Miscellaneous manufacturing industries	2.0982	.5569	30.5	2.2970	2.2042
Transportation and public utilities: *					
Transportation	2.0132	.7457	36.3	1.7902	2.0214
Communication	1.5917	.4784	20.6	1.6176	2.0792
Electric, gas, water, and sanitary services	1.4367	.2305	9.8	2.4692	3.9489
Wholesale and retail trade:					
Wholesale trade	1.7609	.6452	30.5	1.5680	1.8362
Retail trade	1.9834	.7777	55.2	1.5973	1.4545
Finance, insurance, and real estate:					
Finance	2.0166	.7334	37.2	1.8163	2.0205
Insurance	2.3115	.8619	41.6	2.0351	2.3624
Real estate	1.2950	.1064	6.1	5.0436	4.5698
Services:					
Hotels and lodging places and amusements	1.8915	.5837	48.2	1.8026	1.4456
Personal services	1.9017	.7347	61.2	1.5935	1.3594
Business services	1.9347	.8249	41.4	1.5631	1.7175
Eating and drinking places	1.9325	.5731	52.1	1.8315	1.3979
Health services	2.0382	.9014	40.9	1.5004	1.7453
Miscellaneous services	1.9064	.5937	40.6	1.8439	1.6259
Households	1.0945	.3336	20.5		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

South Dakota

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.4763	0.4447	25.6	3.4177	3.6067
Forestry and fishery products	1.0000	0	0	0	0
Mining:					
Coal mining	1.0000	0	0	0	0
Crude petroleum and natural gas	1.4111	.1825	8.8	1.8552	2.5603
Miscellaneous mining	1.8352	.5768	25.5	1.6966	2.4208
Construction:					
New construction	1.8673	.5949	34.3	1.9214	2.1003
Maintenance and repair construction	1.8944	.7372	42.5	1.6413	1.7827
Manufacturing:					
Food and kindred products and tobacco	3.0196	.4720	26.6	5.9208	6.9924
Textile mill products	1.4616	.3349	36.1	1.7766	1.3483
Apparel	1.5197	.3932	26.7	1.7175	1.6597
Paper and allied products	1.4744	.3571	20.2	1.7246	1.8513
Printing and publishing	1.6761	.5430	37.1	1.6698	1.6179
Chemicals and petroleum refining	1.6013	.3502	18.7	2.1248	2.3977
Rubber and leather products	1.6006	.4426	26.3	1.7349	1.8069
Lumber and wood products and furniture	1.8956	.5125	29.9	2.0836	2.1934
Stone, clay, and glass products	1.9309	.5274	27.7	2.1579	2.4043
Primary metal industries	1.6744	.3942	22.3	2.1194	2.2415
Fabricated metal products	1.7370	.5111	27.7	1.8270	2.0991
Machinery, except electrical	1.7894	.5451	31.0	1.8563	2.0259
Electric and electronic equipment	1.9194	.6115	37.2	1.9196	1.9770
Motor vehicles and equipment	1.7216	.4427	26.2	2.0154	2.1015
Transportation equipment, except motor vehicles	1.7148	.4845	26.5	1.8783	2.1477
Instruments and related products	1.7192	.4854	23.6	1.8461	2.4589
Miscellaneous manufacturing industries	1.6260	.4227	28.1	1.8885	1.8196
Transportation and public utilities:*					
Transportation	1.9045	.7464	36.4	1.6851	2.0952
Communication	1.5671	.4750	24.1	1.6056	2.0720
Electric, gas, water, and sanitary services	1.4696	.2131	9.5	2.4783	4.2279
Wholesale and retail trade:					
Wholesale trade	1.7172	.6392	34.4	1.5534	1.8330
Retail trade	1.8899	.7617	59.0	1.5644	1.4700
Finance, insurance, and real estate:					
Finance	1.9565	.7239	41.6	1.7889	1.9838
Insurance	2.3077	.8875	50.8	2.0391	2.3118
Real estate	1.1595	.0643	4.2	5.7171	4.1782
Services:					
Hotels and lodging places and amusements	1.7299	.5296	58.5	1.7134	1.3334
Personal services	1.8573	.7786	64.9	1.5301	1.3877
Business services	1.8428	.7858	46.4	1.5294	1.6570
Eating and drinking places	2.1055	.5926	66.0	1.8938	1.3586
Health services	1.9174	.8741	46.7	1.4753	1.6757
Miscellaneous services	1.8653	.6349	47.7	1.7461	1.6061
Households	1.1014	.3426	24.0		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Tennessee

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.0354	0.4647	40.8	2.3819	1.6378
Forestry and fishery products	1.5435	.1666	10.4	10.0522	7.7000
Mining:					
Coal mining	1.8710	.5165	21.3	1.9533	2.3766
Crude petroleum and natural gas	1.4905	.2040	7.4	2.1096	3.8155
Miscellaneous mining	1.9016	.5481	23.7	1.9080	2.2416
Construction:					
New construction	2.4310	.7642	36.1	2.4312	2.6367
Maintenance and repair construction	2.3024	.8266	40.0	1.9002	2.0002
Manufacturing:					
Food and kindred products and tobacco	2.3057	.4376	23.7	3.8940	5.1084
Textile mill products	2.7703	.6653	34.4	3.2412	3.0158
Apparel	2.6011	.6954	44.8	2.6592	2.1080
Paper and allied products	2.2533	.5129	21.4	2.8803	3.6730
Printing and publishing	2.2903	.6753	32.2	2.1825	2.2512
Chemicals and petroleum refining	2.0319	.4596	18.5	2.6559	3.5984
Rubber and leather products	2.1070	.5565	25.8	2.2904	2.4119
Lumber and wood products and furniture	2.2842	.6535	35.2	2.3696	2.1909
Stone, clay, and glass products	2.2810	.6567	29.5	2.3504	2.5900
Primary metal industries	2.2720	.5706	24.1	2.7571	3.3427
Fabricated metal products	2.1379	.6107	26.8	2.2215	2.5314
Machinery, except electrical	2.2643	.6406	28.7	2.3979	2.6721
Electric and electronic equipment	2.2379	.6145	28.8	2.5043	2.6446
Motor vehicles and equipment	2.4228	.5694	24.8	3.2435	3.9029
Transportation equipment, except motor vehicles	2.1759	.6277	28.2	2.2360	2.5400
Instruments and related products	2.1722	.6539	29.6	2.0989	2.3491
Miscellaneous manufacturing industries	2.4243	.6639	33.3	2.7301	2.6177
Transportation and public utilities: *					
Transportation	2.0912	.7310	32.2	1.8681	2.1582
Communication	1.7633	.5217	21.9	1.7941	2.2848
Electric, gas, water, and sanitary services	1.7357	.3284	13.1	3.0402	4.4237
Wholesale and retail trade:					
Wholesale trade	1.9223	.6850	29.6	1.6932	2.0234
Retail trade	2.1375	.8155	52.5	1.7035	1.5242
Finance, insurance, and real estate:					
Finance	2.1231	.7308	35.0	1.9492	2.1155
Insurance	2.5649	.9233	40.8	2.2346	2.6375
Real estate	1.2701	.0973	5.1	5.3994	4.8170
Services:					
Hotels and lodging places and amusements	2.0170	.6144	42.3	1.9867	1.6194
Personal services	2.1628	.8213	52.5	1.7417	1.5468
Business services	2.1338	.8704	43.0	1.6831	1.7690
Eating and drinking places	2.2775	.6476	51.3	2.1050	1.5320
Health services	2.2369	.9517	40.0	1.6094	1.8906
Miscellaneous services	2.1337	.5862	33.3	2.3478	2.0160
Households	1.3473	.4015	22.1	.....	.....

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Texas

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.8303	0.5323	29.4	3.6064	2.9051
Forestry and fishery products	2.0660	.3644	18.1	3.3476	3.0282
Mining:					
Coal mining	2.0174	.5317	18.2	1.9823	2.8840
Crude petroleum and natural gas	1.6513	.2349	9.5	2.3945	3.0173
Miscellaneous mining	2.2466	.5634	22.7	2.1115	2.5024
Construction:					
New construction	2.3145	.6505	26.8	2.3567	2.8011
Maintenance and repair construction	2.4518	.8501	38.3	1.8673	1.9751
Manufacturing:					
Food and kindred products and tobacco	2.7572	.5036	24.0	4.4883	4.9047
Textile mill products	2.1434	.4879	24.3	2.3888	2.2516
Apparel	2.0158	.5434	33.2	2.0582	1.7495
Paper and allied products	2.2747	.4831	19.5	2.6346	3.1521
Printing and publishing	2.1939	.6267	29.5	2.0789	2.0755
Chemicals and petroleum refining	2.3811	.3085	11.7	5.2312	9.2009
Rubber and leather products	2.4440	.5695	25.6	2.3187	2.3034
Lumber and wood products and furniture	2.3281	.6006	29.6	2.3966	2.2590
Stone, clay, and glass products	2.5126	.6338	28.0	2.4855	2.5604
Primary metal industries	2.4562	.5555	22.2	2.7247	3.2218
Fabricated metal products	2.2528	.5918	25.4	2.2956	2.4577
Machinery, except electrical	2.2460	.6105	24.1	2.2995	2.7884
Electric and electronic equipment	2.6097	.7870	30.4	2.3457	2.9361
Motor vehicles and equipment	1.9918	.4234	18.1	2.8097	3.0021
Transportation equipment, except motor vehicles	2.3208	.6731	25.3	2.2590	2.9691
Instruments and related products	2.2764	.6876	28.9	2.0614	2.3127
Miscellaneous manufacturing industries	2.3191	.5776	25.6	2.5358	2.6730
Transportation and public utilities: *					
Transportation	2.4871	.7297	30.9	2.1260	2.3983
Communication	1.9097	.5565	21.3	1.8871	2.4609
Electric, gas, water, and sanitary services	2.4559	.3226	12.2	4.4168	6.5537
Wholesale and retail trade:					
Wholesale trade	2.1402	.7298	28.8	1.7784	2.2126
Retail trade	2.4522	.8778	52.1	1.8079	1.5934
Finance, insurance, and real estate:					
Finance	2.5674	.8783	38.7	2.1798	2.4112
Insurance	3.0170	1.0450	44.5	2.5198	2.9114
Real estate	1.3793	.1260	6.0	5.0156	4.6223
Services:					
Hotels and lodging places and amusements	2.3051	.6812	43.3	2.0635	1.6524
Personal services	2.3591	.8586	53.0	1.7806	1.5361
Business services	2.4103	.9498	41.7	1.7747	1.9342
Eating and drinking places	2.5111	.6884	50.6	2.2061	1.5468
Health services	2.4756	.9971	42.7	1.6553	1.8275
Miscellaneous services	2.3643	.7093	39.5	2.0744	1.8098
Households	1.5712	.4341	22.3		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Utah

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.4455	0.4349	32.2	3.3692	2.5233
Forestry and fishery products	1.7554	.3999	28.4	1.9700	1.6647
Mining:					
Coal mining	1.9535	.5289	19.8	1.9667	3.0708
Crude petroleum and natural gas	1.5124	.2035	9.5	2.0690	2.6406
Miscellaneous mining	2.6325	.7782	32.8	2.2454	3.2131
Construction:					
New construction	2.1872	.6659	32.2	2.1686	2.6368
Maintenance and repair construction	2.1821	.7886	39.9	1.7872	1.9940
Manufacturing:					
Food and kindred products and tobacco	2.6161	.4526	27.9	3.9458	4.4946
Textile mill products	1.7575	.4732	34.3	1.9074	1.5921
Apparel	1.7159	.4770	37.9	1.7909	1.5170
Paper and allied products	1.4789	.2802	12.7	1.9718	2.4345
Printing and publishing	1.8609	.5638	32.5	1.8309	1.8320
Chemicals and petroleum refining	1.7324	.2102	9.6	3.5401	4.6326
Rubber and leather products	1.7861	.4661	22.6	1.8722	2.1189
Lumber and wood products and furniture	1.8851	.5398	32.5	1.9236	1.8042
Stone, clay, and glass products	2.3660	.6266	30.0	2.5289	2.7967
Primary metal industries	2.5737	.5834	24.4	3.4679	4.9599
Fabricated metal products	2.2681	.6346	29.5	2.2122	2.5473
Machinery, except electrical	2.1571	.6266	29.2	2.1738	2.5699
Electric and electronic equipment	2.2616	.7117	31.9	2.1022	2.6432
Motor vehicles and equipment	1.9789	.5084	23.7	2.1536	2.5445
Transportation equipment, except motor vehicles	2.0875	.6370	26.3	2.0272	2.8736
Instruments and related products	2.0196	.5906	29.1	1.9902	2.2307
Miscellaneous manufacturing industries	1.9439	.4940	28.4	2.1925	2.0506
Transportation and public utilities: *					
Transportation	2.2681	.7506	34.0	1.8785	2.3556
Communication	1.7415	.5182	23.7	1.7519	2.3128
Electric, gas, water, and sanitary services	2.0641	.2853	11.9	3.6980	5.6081
Wholesale and retail trade:					
Wholesale trade	1.9196	.6838	31.5	1.6618	2.0979
Retail trade	2.1618	.8191	58.7	1.6823	1.5241
Finance, insurance, and real estate:					
Finance	2.2501	.7928	41.6	2.0126	2.2728
Insurance	2.4718	.9011	47.5	2.1285	2.3905
Real estate	1.2315	.0848	4.9	5.0715	4.3562
Services:					
Hotels and lodging places and amusements	2.0247	.6019	45.0	1.9411	1.6432
Personal services	2.0856	.7833	58.6	1.6927	1.4810
Business services	2.1209	.8690	50.1	1.6643	1.7090
Eating and drinking places	2.2361	.6300	63.4	2.0135	1.4141
Health services	2.1741	.9359	47.2	1.5558	1.7312
Miscellaneous services	2.0803	.6800	40.0	1.8736	1.8773
Households	1.2815	.3717	23.3		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Vermont

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	1.8366	0.3579	24.5	2.3563	1.9530
Forestry and fishery products	1.6610	.1791	11.2	10.6262	8.2118
Mining:					
Coal mining	1.0000	0	0	0	0
Crude petroleum and natural gas	1.0000	0	0	0	0
Miscellaneous mining	1.5967	.4587	21.9	1.6549	1.8350
Construction:					
New construction	1.9766	.6406	34.6	2.0695	2.1427
Maintenance and repair construction	1.8773	.7125	36.3	1.6733	1.8010
Manufacturing:					
Food and kindred products and tobacco	2.1983	.3578	20.1	3.7381	4.4670
Textile mill products	1.7627	.4345	24.2	2.0249	1.9635
Apparel	1.6482	.4569	30.0	1.7463	1.5891
Paper and allied products	1.7570	.3751	17.8	2.3277	2.8496
Printing and publishing	1.8618	.5427	29.0	1.8730	1.8901
Chemicals and petroleum refining	1.4736	.3312	15.5	1.8147	2.0545
Rubber and leather products	1.5945	.4304	22.0	1.7385	1.8123
Lumber and wood products and furniture	2.1087	.5927	36.1	2.2363	2.1050
Stone, clay, and glass products	1.8058	.5295	27.0	1.9498	2.0090
Primary metal industries	1.6826	.4343	20.9	1.9547	2.1349
Fabricated metal products	1.6991	.5318	22.2	1.7364	2.1654
Machinery, except electrical	1.7567	.6109	28.0	1.6755	1.8920
Electric and electronic equipment	2.1165	.7068	27.2	2.0504	2.8603
Motor vehicles and equipment	1.5686	.4036	18.8	1.8112	2.0873
Transportation equipment, except motor vehicles	1.7008	.5270	21.8	1.7448	2.2147
Instruments and related products	1.7781	.6327	26.7	1.6595	2.0077
Miscellaneous manufacturing industries	1.8001	.4740	27.3	2.1171	1.9857
Transportation and public utilities:*					
Transportation	1.8611	.7663	36.1	1.6163	1.8089
Communication	1.5537	.4722	20.9	1.5964	1.9370
Electric, gas, water, and sanitary services	1.3323	.2006	8.8	2.1837	2.8332
Wholesale and retail trade:					
Wholesale trade	1.6851	.6291	28.9	1.5288	1.7815
Retail trade	1.8921	.7599	50.9	1.5607	1.4531
Finance, insurance, and real estate:					
Finance	1.7385	.5838	28.1	1.7244	1.9447
Insurance	2.3129	.8736	38.8	2.0759	2.4904
Real estate	1.2561	.0961	5.0	5.0941	5.3075
Services:					
Hotels and lodging places and amusements	1.7620	.5442	40.7	1.7242	1.4607
Personal services	1.7977	.7324	50.7	1.5278	1.3945
Business services	1.8382	.8148	44.4	1.5080	1.5530
Eating and drinking places	1.8263	.5408	45.9	1.7284	1.3825
Health services	1.8818	.8618	42.2	1.4533	1.5759
Miscellaneous services	1.8155	.6058	38.6	1.7294	1.5972
Households .....	.9847	.3102	18.5		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Virginia

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	1.9098	0.4274	28.9	2.2353	1.7330
Forestry and fishery products	1.4746	.1602	8.7	7.0586	4.9807
Mining:					
Coal mining	1.8931	.5288	19.6	1.9661	2.5085
Crude petroleum and natural gas	1.5021	.2112	6.8	2.1469	4.7873
Miscellaneous mining	1.8622	.5304	23.0	1.9202	2.1043
Construction:					
New construction	2.2925	.7263	32.2	2.3795	2.7158
Maintenance and repair construction	2.1057	.7798	36.1	1.7968	1.9135
Manufacturing:					
Food and kindred products and tobacco	2.0194	.3529	17.3	3.4333	4.2994
Textile mill products	2.4721	.6219	31.9	2.8351	2.6055
Apparel	2.5230	.6879	43.7	2.5965	2.0411
Paper and allied products	2.0984	.4954	20.0	2.5894	3.3340
Printing and publishing	2.0963	.6287	27.5	2.0689	2.2449
Chemicals and petroleum refining	1.7701	.4186	16.2	2.1889	2.7823
Rubber and leather products	1.9602	.5115	22.1	2.1653	2.3525
Lumber and wood products and furniture	2.2455	.6290	31.9	2.3736	2.2683
Stone, clay, and glass products	2.0794	.5770	26.4	2.2422	2.2773
Primary metal industries	1.8437	.4636	17.7	2.2004	2.8180
Fabricated metal products	1.9363	.5659	23.4	2.0010	2.2602
Machinery, except electrical	1.9864	.6127	25.7	2.0005	2.2400
Electric and electronic equipment	2.0549	.6656	25.7	1.9796	2.4425
Motor vehicles and equipment	1.7765	.3809	15.6	2.5843	3.1246
Transportation equipment, except motor vehicles	1.9811	.6896	28.6	1.7764	2.0403
Instruments and related products	1.9681	.6195	26.6	1.9561	2.1613
Miscellaneous manufacturing industries	2.0744	.5667	27.2	2.3739	2.3464
Transportation and public utilities: *					
Transportation	2.0196	.7149	30.4	1.8380	2.0975
Communication	1.7167	.5204	19.5	1.7599	2.3206
Electric, gas, water, and sanitary services	1.7031	.2790	10.6	3.2196	4.7204
Wholesale and retail trade:					
Wholesale trade	1.8903	.6878	27.3	1.6715	2.0559
Retail trade	2.1324	.8234	50.2	1.6912	1.5168
Finance, insurance, and real estate:					
Finance	2.2912	.8332	37.0	2.0415	2.2605
Insurance	2.4154	.8839	37.6	2.1188	2.4628
Real estate	1.3542	.1265	6.0	5.0667	5.3243
Services:					
Hotels and lodging places and amusements	2.0002	.6155	43.2	1.9155	1.5118
Personal services	2.0651	.8200	53.1	1.6570	1.4516
Business services	2.1368	.8843	38.3	1.7147	1.9047
Eating and drinking places	2.1083	.6136	48.4	1.9612	1.4355
Health services	2.1404	.9396	39.9	1.5578	1.7426
Miscellaneous services	2.1139	.6967	39.4	1.9515	1.7484
Households	1.2126	.3684	19.7		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Washington

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.0767	0.4975	24.8	2.2891	2.2158
Forestry and fishery products	1.9543	.4651	18.4	2.4313	3.0553
Mining:					
Coal mining	1.7152	.4764	16.8	1.7712	2.4020
Crude petroleum and natural gas	1.4868	.2049	6.6	2.0831	4.6029
Miscellaneous mining	1.8854	.5574	22.2	1.8191	2.2192
Construction:					
New construction	2.2449	.7027	30.8	2.2682	2.6265
Maintenance and repair construction	2.1081	.7679	34.2	1.7665	1.9428
Manufacturing:					
Food and kindred products and tobacco	2.2230	.4534	20.9	3.5139	3.6183
Textile mill products	1.7045	.4356	22.3	1.9721	1.8813
Apparel	1.6502	.4532	28.3	1.7670	1.5437
Paper and allied products	2.2068	.4917	18.4	2.7063	3.9860
Printing and publishing	2.1526	.6456	29.8	2.0254	2.0555
Chemicals and petroleum refining	1.4572	.2092	7.9	2.3925	3.3672
Rubber and leather products	1.7611	.4654	22.5	1.8931	1.8670
Lumber and wood products and furniture	2.5612	.6104	26.8	2.9838	3.2008
Stone, clay, and glass products	2.1442	.5767	26.6	2.3193	2.3246
Primary metal industries	2.1610	.5123	19.5	2.5687	3.3570
Fabricated metal products	1.9645	.5238	22.0	2.1233	2.3674
Machinery, except electrical	1.9353	.5931	24.3	1.9366	2.2585
Electric and electronic equipment	1.9678	.6350	26.1	1.8870	2.1925
Motor vehicles and equipment	1.6436	.3305	13.4	2.4390	2.9823
Transportation equipment, except motor vehicles	1.8978	.5762	20.9	1.9181	2.6054
Instruments and related products	1.9001	.5993	23.5	1.8164	2.2486
Miscellaneous manufacturing industries	1.9616	.5165	26.8	2.2062	2.0206
Transportation and public utilities: *					
Transportation	2.2183	.7048	29.5	2.0647	2.3832
Communication	1.6672	.5017	19.6	1.6965	2.1596
Electric, gas, water, and sanitary services	1.6909	.2518	9.7	2.9114	3.8849
Wholesale and retail trade:					
Wholesale trade	1.8718	.6763	27.9	1.6435	1.9563
Retail trade	2.0980	.8107	48.0	1.6651	1.5373
Finance, insurance, and real estate:					
Finance	2.1723	.7655	33.0	1.9764	2.3137
Insurance	2.5999	.9544	41.6	2.2629	2.5886
Real estate	1.3063	.1099	5.4	5.3899	4.4787
Services:					
Hotels and lodging places and amusements	1.9319	.5950	43.6	1.8657	1.4826
Personal services	1.9901	.7969	53.0	1.6058	1.4117
Business services	2.0694	.8625	41.2	1.6518	1.7267
Eating and drinking places	2.1789	.6336	50.6	2.0249	1.4456
Health services	2.1019	.9251	40.4	1.5406	1.6935
Miscellaneous services	2.0168	.6085	34.0	1.9433	1.7450
Households	1.2197	.3670	19.6	.....	.....

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

West Virginia

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	1.5385	0.2991	21.1	1.8640	1.6233
Forestry and fishery products	1.2484	.0891	5.8	5.3762	3.6069
Mining:					
Coal mining	1.7232	.4614	16.2	1.7447	2.5939
Crude petroleum and natural gas	1.4386	.1766	8.3	1.8258	2.1779
Miscellaneous mining	1.6841	.4542	23.5	1.6288	1.7220
Construction:					
New construction	1.7162	.5058	29.5	1.7533	1.7037
Maintenance and repair construction	1.8274	.6836	36.4	1.5644	1.6580
Manufacturing:					
Food and kindred products and tobacco	1.7537	.3346	19.4	2.1790	2.3050
Textile mill products	1.6182	.4546	32.2	1.6384	1.4961
Apparel	1.5196	.4136	37.1	1.5814	1.3730
Paper and allied products	1.8100	.3970	21.4	2.0123	2.0292
Printing and publishing	1.5304	.4419	25.2	1.5616	1.5869
Chemicals and petroleum refining	1.9661	.3303	12.9	2.5772	4.0541
Rubber and leather products	1.8855	.4879	29.0	1.8639	1.7594
Lumber and wood products and furniture	2.1107	.4991	30.0	2.2922	2.2225
Stone, clay, and glass products	2.0241	.5715	27.3	1.8644	2.0584
Primary metal industries	1.9647	.4943	18.4	2.0421	3.1309
Fabricated metal products	1.9544	.5083	21.7	2.0721	2.4334
Machinery, except electrical	1.7817	.5565	26.0	1.7001	1.9125
Electric and electronic equipment	1.8658	.5381	24.1	1.7968	2.1166
Motor vehicles and equipment	1.6887	.4247	21.2	1.8421	1.9417
Transportation equipment, except motor vehicles	1.7224	.5074	20.9	1.7073	2.1557
Instruments and related products	1.6128	.4882	23.3	1.5636	1.7583
Miscellaneous manufacturing industries	1.7993	.4501	27.3	2.0051	1.8359
Transportation and public utilities: *					
Transportation	1.8101	.6657	30.3	1.6091	1.8850
Communication	1.4390	.4244	19.6	1.4594	1.7106
Electric, gas, water, and sanitary services	2.1897	.2559	10.7	3.6047	5.0514
Wholesale and retail trade:					
Wholesale trade	1.5845	.5779	27.7	1.4283	1.6466
Retail trade	1.7546	.6927	53.1	1.4470	1.3384
Finance, insurance, and real estate:					
Finance	1.5976	.5215	28.4	1.5587	1.6499
Insurance	1.8417	.7008	34.2	1.6449	1.8822
Real estate	1.1311	.0518	3.0	4.3973	3.8857
Services:					
Hotels and lodging places and amusements	1.5962	.4402	37.8	1.5862	1.3511
Personal services	1.7663	.6925	55.4	1.4745	1.3311
Business services	1.6618	.7037	39.0	1.4094	1.4804
Eating and drinking places	1.6552	.4871	52.3	1.5831	1.2544
Health services	1.7745	.8081	37.6	1.3754	1.5613
Miscellaneous services	1.7522	.6083	47.5	1.5801	1.3958
Households .....	.8804	.2636	17.1		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Wisconsin

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.7444	0.5335	29.4	3.6631	3.4096
Forestry and fishery products	1.9704	.2477	15.2	11.7861	4.8060
Mining:					
Coal mining	1.0000	0	0	0	0
Crude petroleum and natural gas	1.0000	0	0	0	0
Miscellaneous mining	1.8376	.5280	23.2	1.8370	2.1976
Construction:					
New construction	2.2157	.6992	33.9	2.2016	2.4115
Maintenance and repair construction	2.1687	.7905	36.1	1.8158	2.1377
Manufacturing:					
Food and kindred products and tobacco	2.8153	.4965	24.6	5.1801	6.1778
Textile mill products	1.7780	.4742	24.7	1.9240	1.9704
Apparel	1.7571	.4776	29.1	1.8810	1.7286
Paper and allied products	1.9953	.4482	18.3	2.4532	3.4131
Printing and publishing	2.1429	.6265	30.7	2.0613	2.1799
Chemicals and petroleum refining	1.7532	.3527	14.5	2.5237	3.6589
Rubber and leather products	1.9650	.5120	25.1	2.0704	2.1901
Lumber and wood products and furniture	2.2573	.6238	31.6	2.3884	2.4704
Stone, clay, and glass products	1.9033	.5300	24.2	2.0263	2.3120
Primary metal industries	1.9019	.5792	25.2	1.8926	2.2827
Fabricated metal products	1.9219	.5472	24.4	2.0386	2.3834
Machinery, except electrical	2.2010	.6561	27.7	2.2581	2.8371
Electric and electronic equipment	2.0715	.6273	27.6	2.0795	2.5010
Motor vehicles and equipment	2.2968	.5118	20.9	3.3708	5.1273
Transportation equipment, except motor vehicles	2.2784	.6419	28.3	2.4632	2.9153
Instruments and related products	1.9751	.6174	28.2	1.9139	2.2135
Miscellaneous manufacturing industries	2.1388	.5931	30.3	2.3251	2.3914
Transportation and public utilities: *					
Transportation	2.0178	.7746	36.8	1.7251	1.9503
Communication	1.6284	.4891	21.5	1.6539	2.0377
Electric, gas, water, and sanitary services	1.4646	.2009	8.0	2.3710	3.4751
Wholesale and retail trade:					
Wholesale trade	1.8150	.6601	29.1	1.6042	1.9784
Retail trade	2.0376	.7960	55.8	1.6348	1.4698
Finance, insurance, and real estate:					
Finance	2.0125	.7169	35.7	1.8443	2.0410
Insurance	2.4048	.8599	40.7	2.1633	2.5395
Real estate	1.2127	.0793	4.2	6.1947	5.0068
Services:					
Hotels and lodging places and amusements	1.9321	.6095	55.1	1.8230	1.3962
Personal services	1.9996	.8134	61.5	1.5929	1.3909
Business services	2.0070	.8510	43.9	1.5884	1.6916
Eating and drinking places	2.3090	.6400	59.7	2.0455	1.4108
Health services	2.0682	.9144	44.5	1.5315	1.6745
Miscellaneous services	2.1486	.7125	46.4	1.9080	1.6564
Households	1.2074	.3597	21.5		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

Wyoming

Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Final-demand multipliers			Direct-effect multipliers	
	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)	Earnings ⁴ (dollars)	Employment ⁵ (number of jobs)
Agriculture, forestry, and fisheries:					
Agricultural products and agricultural, forestry, and fishery services	2.5378	0.3553	34.8	3.3597	2.5279
Forestry and fishery products	1.7418	.1553	13.2	9.3302	7.4069
Mining:					
Coal mining	1.7004	.4408	15.2	1.6595	2.5863
Crude petroleum and natural gas	1.4315	.1727	7.8	1.7780	2.4171
Miscellaneous mining	1.8176	.4043	15.5	1.7184	2.5982
Construction:					
New construction	1.5532	.4185	21.8	1.5617	1.7462
Maintenance and repair construction	1.7318	.6579	35.6	1.4451	1.5855
Manufacturing:					
Food and kindred products and tobacco	2.2281	.3126	20.1	3.1170	3.8073
Textile mill products	1.6312	.4396	10.9	1.7112	0
Apparel	1.4112	.3815	42.8	1.4331	1.2156
Paper and allied products	1.0000	0	0	0	0
Printing and publishing	1.5872	.4822	29.2	1.5146	1.5532
Chemicals and petroleum refining	2.0451	.1844	8.2	5.6660	8.1123
Rubber and leather products	1.5430	.3859	21.1	1.5616	1.6613
Lumber and wood products and furniture	2.1965	.4795	28.0	2.3223	2.4252
Stone, clay, and glass products	2.0849	.4570	28.5	2.2658	1.9392
Primary metal industries	1.8358	.4523	15.0	1.8706	3.8809
Fabricated metal products	1.5411	.3211	15.4	1.7986	2.0165
Machinery, except electrical	1.5425	.4501	22.2	1.5302	1.7647
Electric and electronic equipment	1.5712	.4654	21.2	1.5200	1.8558
Motor vehicles and equipment	1.4367	.3549	17.5	1.5283	1.7377
Transportation equipment, except motor vehicles	1.5940	.3962	24.6	1.7331	1.7088
Instruments and related products	1.5246	.4968	25.9	1.4270	1.5890
Miscellaneous manufacturing industries	1.5357	.4220	29.6	1.5469	1.4666
Transportation and public utilities:*					
Transportation	1.8891	.5798	26.1	1.6585	2.0818
Communication	1.4604	.4267	20.4	1.4609	1.7897
Electric, gas, water, and sanitary services	2.1080	.2664	10.7	3.4540	5.4550
Wholesale and retail trade:					
Wholesale trade	1.6184	.5793	28.3	1.4255	1.7112
Retail trade	1.7973	.6949	54.0	1.4451	1.3669
Finance, insurance, and real estate:					
Finance	1.6843	.5581	31.2	1.5796	1.7404
Insurance	1.8296	.6939	37.6	1.5970	1.8009
Real estate	1.1465	.0565	3.5	4.1991	3.7256
Services:					
Hotels and lodging places and amusements	1.6902	.4946	49.5	1.5851	1.3095
Personal services	1.6732	.6604	56.0	1.3996	1.2906
Business services	1.6683	.7058	45.0	1.3880	1.4216
Eating and drinking places	1.6194	.4711	54.4	1.5245	1.2360
Health services	1.7425	.7897	40.2	1.3412	1.4968
Miscellaneous services	1.6848	.5520	41.3	1.5550	1.4570
Households .....	.8742	.2485	17.4		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries

for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

4. Each entry in column 4 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

5. Each entry in column 5 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings

[Dollars]

	1.0100	1.0200	1.0303	2.0100	2.0201	2.0202	2.0203	2.0300	2.0401	2.0402	2.0501	2.0502	2.0503	2.0600	2.0701	2.0702
1	0.1578	0.1220	0.0830	0.2678	0.2693	0.2484	0.3175	0	0.2901	0.3702	0.3698	0.3278	0.3483	0.2882	0.3967	0.4310
2 .....	.0001	.0002	.0001	.0001	.0001	.0001	.0001	0	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0020	.0025	.0017	.0042	.0048	.0044	.0042	0	.0046	.0041	.0026	.0035	.0025	.0029	.0022	.0042
5 .....	.0002	.0002	.0002	.0006	.0005	.0007	.0002	0	.0003	.0003	.0003	.0004	.0005	.0002	.0001	.0002
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0072	.0074	.0064	.0122	.0088	.0092	.0064	0	.0096	.0090	.0084	.0083	.0075	.0090	.0071	.0078
8 .....	.0072	.0229	.0061	.0046	.0041	.0041	.0041	0	.0049	.0051	.0049	.0045	.0045	.0042	.0049	.0054
9 .....	.0002	.0002	.0001	.0003	.0002	.0002	.0002	0	.0003	.0003	.0003	.0002	.0002	.0002	.0002	.0004
10 .....	.0020	.0022	.0014	.0033	.0028	.0027	.0042	0	.0047	.0049	.0047	.0031	.0031	.0028	.0034	.0037
11 .....	.0008	.0028	.0006	.0015	.0009	.0010	.0019	0	.0108	.0023	.0022	.0010	.0010	.0009	.0010	.0016
12 .....	.0027	.0036	.0022	.0043	.0035	.0036	.0032	0	.0045	.0040	.0039	.0038	.0035	.0036	.0037	.0039
13 .....	.0046	.0090	.0040	.0112	.0081	.0100	.0062	0	.0093	.0075	.0055	.0073	.0067	.0059	.0039	.0056
14 .....	.0008	.0018	.0009	.0013	.0010	.0012	.0010	0	.0016	.0013	.0015	.0011	.0011	.0011	.0014	.0031
15 .....	.0008	.0009	.0006	.0013	.0010	.0011	.0015	0	.0228	.0018	.0018	.0012	.0011	.0011	.0011	.0013
16 .....	.0007	.0007	.0005	.0010	.0007	.0008	.0006	0	.0009	.0008	.0008	.0008	.0007	.0008	.0007	.0013
17 .....	.0003	.0004	.0003	.0005	.0004	.0004	.0003	0	.0005	.0004	.0004	.0004	.0003	.0004	.0003	.0004
18 .....	.0015	.0016	.0012	.0021	.0016	.0018	.0014	0	.0023	.0018	.0017	.0017	.0016	.0017	.0016	.0017
19 .....	.0012	.0013	.0013	.0019	.0016	.0020	.0009	0	.0019	.0017	.0015	.0018	.0014	.0018	.0016	.0014
20 .....	.0013	.0014	.0011	.0021	.0017	.0018	.0015	0	.0021	.0020	.0019	.0019	.0018	.0018	.0018	.0020
21 .....	.0002	.0002	.0002	.0004	.0004	.0004	.0003	0	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004
22 .....	.0003	.0004	.0003	.0005	.0004	.0004	.0004	0	.0005	.0005	.0004	.0004	.0004	.0004	.0004	.0005
23 .....	.0004	.0006	.0004	.0007	.0006	.0006	.0005	0	.0008	.0007	.0006	.0006	.0006	.0006	.0006	.0007
24 .....	.0005	.0006	.0004	.0008	.0007	.0007	.0007	0	.0009	.0009	.0008	.0008	.0008	.0007	.0008	.0009
25 .....	.0311	.0248	.0132	.0179	.0148	.0170	.0152	0	.0190	.0149	.0151	.0135	.0142	.0123	.0115	.0137
26 .....	.0050	.0055	.0040	.0067	.0059	.0060	.0056	0	.0071	.0068	.0067	.0063	.0061	.0061	.0063	.0069
27 .....	.0021	.0024	.0017	.0048	.0028	.0030	.0030	0	.0037	.0036	.0031	.0034	.0032	.0029	.0020	.0037
28 .....	.0257	.0391	.0238	.0399	.0270	.0329	.0238	0	.0455	.0287	.0304	.0272	.0237	.0273	.0208	.0264
29 .....	.0192	.0193	.0137	.0293	.0267	.0265	.0263	0	.0317	.0328	.0324	.0300	.0295	.0280	.0325	.0351
30 .....	.0144	.0110	.0127	.0207	.0153	.0144	.0098	0	.0160	.0155	.0150	.0156	.0128	.0170	.0147	.0137
31 .....	.0064	.0059	.0061	.0048	.0123	.0123	.0074	0	.0079	.0112	.0100	.0108	.0100	.0111	.0103	.0100
32 .....	.0031	.0021	.0036	.0064	.0053	.0053	.0024	0	.0040	.0040	.0044	.0045	.0035	.0063	.0042	.0032
33 .....	.0031	.0038	.0023	.0053	.0041	.0042	.0039	0	.0051	.0051	.0049	.0045	.0044	.0042	.0046	.0050
34 .....	.0030	.0038	.0022	.0059	.0042	.0043	.0038	0	.0054	.0055	.0051	.0048	.0046	.0044	.0048	.0051
35 .....	.0182	.0225	.0183	.0293	.0232	.0252	.0184	0	.0283	.0257	.0241	.0243	.0216	.0239	.0226	.0232
36 .....	.0067	.0072	.0049	.0103	.0091	.0091	.0088	0	.0111	.0110	.0108	.0100	.0098	.0094	.0106	.0115
37 .....	.0181	.0232	.0166	.0239	.0219	.0215	.0228	0	.0263	.0275	.0271	.0248	.0250	.0227	.0272	.0298
38 .....	.0092	.0100	.0075	.0154	.0130	.0118	.0109	0	.0156	.0155	.0150	.0147	.0134	.0139	.0149	.0152
39 .....	.0011	.0011	.0007	.0016	.0015	.0015	.0016	0	.0018	.0019	.0019	.0017	.0017	.0016	.0019	.0020
Total .....	.3592	.3647	.2443	.5446	.5004	.4905	.5209	0	.6025	.6298	.6207	.5669	.5717	.5197	.6230	.6822

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	3.0001	3.0002	4.0001	4.0002	5.0000	6.0100	6.0200	7.0000	8.0000	9.0001	9.0002	9.0003	9.0004	10.0000	11.0101	11.0102
1	0.0728	0.0030	0.3395	0.7217	0.0027	0	0.0031	0.0022	0.0009	0.0024	0.0026	0.0024	0.0024	0.0025	0.0044	0.0038
2 .....	.0169	.2236	.0001	.0002	.0001	0	.0001	.0001	0	.0001	.0001	.0001	.0001	.0001	.0001	.0001
3	0	0	0	0	0	0	0	.2690	0	0	0	0	0	0	0	0
4 .....	.0014	.0064	.0037	.0071	.0040	0	.0031	.0021	.1008	.0031	.0030	.0057	.0044	.0054	.0029	.0028
5 .....	.0002	.0001	.0008	.0003	.2950	0	.3661	.0004	0	.2786	.2971	.2568	.2608	.2356	.0018	.0016
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	.2942	.2830
7 .....	.0099	.0105	.0159	.0178	.0144	0	.0137	.0093	.0156	.0111	.0122	.0106	.0111	.0102	.0101	.0098
8 .....	.0045	.0095	.0064	.0098	.0048	0	.0055	.0038	.0016	.0042	.0044	.0043	.0043	.0040	.0065	.0061
9 .....	.0003	.0020	.0009	.0004	.0002	0	.0002	.0002	.0001	.0002	.0002	.0002	.0002	.0002	.0012	.0011
10 .....	.0023	.0042	.0053	.0065	.0032	0	.0037	.0026	.0011	.0029	.0030	.0030	.0030	.0027	.0043	.0043
11 .....	.0011	.0013	.0032	.0020	.0010	0	.0011	.0008	.0004	.0010	.0010	.0010	.0011	.0009	.0020	.0019
12 .....	.0028	.0040	.0055	.0094	.0041	0	.0046	.0032	.0024	.0038	.0039	.0045	.0046	.0037	.0065	.0057
13 .....	.0047	.0093	.0150	.0100	.0058	0	.0066	.0036	.0013	.0050	.0037	.0040	.0041	.0052	.0075	.0090
14 .....	.0008	.0012	.0018	.0025	.0023	0	.0020	.0019	.0004	.0026	.0014	.0020	.0019	.0015	.0026	.0041
15 .....	.0007	.0013	.0014	.0022	.0016	0	.0029	.0012	.0004	.0011	.0011	.0011	.0011	.0012	.0301	.0324
16 .....	.0006	.0008	.0012	.0015	.0009	0	.0010	.0013	.0004	.0008	.0010	.0008	.0009	.0007	.0158	.0167
17 .....	.0007	.0011	.0006	.0006	.0047	0	.0018	.0010	.0003	.0012	.0012	.0024	.0021	.0012	.0030	.0038
18 .....	.0041	.0034	.0026	.0031	.0064	0	.0077	.0048	.0018	.0043	.0040	.0063	.0050	.0076	.0147	.0194
19 .....	.0013	.0034	.0019	.0025	.0099	0	.0061	.0094	.0013	.0075	.0068	.0194	.0078	.0055	.0035	.0049
20 .....	.0014	.0026	.0025	.0037	.0026	0	.0032	.0024	.0011	.0030	.0029	.0025	.0027	.0025	.0107	.0113
21 .....	.0002	.0003	.0005	.0009	.0006	0	.0006	.0003	.0001	.0003	.0003	.0004	.0004	.0003	.0004	.0004
22 .....	.0003	.0493	.0009	.0010	.0008	0	.0007	.0005	.0002	.0005	.0007	.0008	.0008	.0006	.0007	.0007
23 .....	.0011	.0011	.0008	.0012	.0008	0	.0010	.0006	.0003	.0007	.0007	.0007	.0007	.0007	.0016	.0017
24 .....	.0005	.0008	.0012	.0017	.0010	0	.0010	.0007	.0003	.0008	.0008	.0008	.0008	.0007	.0012	.0012
25 .....	.0114	.0171	.0276	.0330	.0218	0	.0206	.0113	.0049	.0149	.0143	.0184	.0330	.0149	.0276	.0279
26 .....	.0038	.0062	.0076	.0126	.0077	0	.0084	.0054	.0029	.0069	.0069	.0071	.0071	.0066	.0107	.0103
27 .....	.0014	.0023	.0033	.0044	.0084	0	.0052	.0026	.0015	.0047	.0048	.0133	.0076	.0123	.0035	.0034
28 .....	.0207	.0300	.0487	.0508	.0285	0	.0285	.0242	.0071	.0251	.0232	.0288	.0260	.0220	.0466	.0519
29 .....	.0156	.0283	.0367	.0654	.0317	0	.0359	.0247	.0104	.0270	.0279	.0272	.0275	.0251	.0976	.0447
30 .....	.0130	.0114	.0169	.0206	.0134	0	.0171	.0112	.0050	.0151	.0140	.0141	.0131	.0289	.0173	.0167
31 .....	.0064	.0165	.0107	.0188	.0099	0	.0109	.0070	.0029	.0074	.0077	.0079	.0081	.0071	.0121	.0117
32 .....	.0013	.0021	.0027	.0067	.0024	0	.0032	.0024	.0009	.0023	.0024	.0022	.0022	.0021	.0035	.0032
33 .....	.0038	.0047	.0092	.0092	.0052	0	.0058	.0036	.0018	.0069	.0077	.0058	.0062	.0054	.0068	.0065
34 .....	.0043	.0041	.0127	.0090	.0047	0	.0052	.0036	.0015	.0046	.0047	.0043	.0044	.0037	.0062	.0059
35 .....	.0542	.0309	.0382	.0561	.0349	0	.0403	.0242	.0163	.0337	.0334	.0303	.0342	.0304	.0564	.0886
36 .....	.0064	.0106	.0138	.0244	.0111	0	.0127	.0087	.0040	.0102	.0107	.0102	.0104	.0094	.0180	.0148
37 .....	.0130	.0238	.0306	.0528	.0261	0	.0299	.0211	.0089	.0232	.0239	.0234	.0234	.0216	.0344	.0334
38 .....	.0102	.0151	.0216	.0363	.0231	0	.0238	.0115	.0047	.0118	.0123	.0115	.0119	.0112	.0189	.0181
39 .....	.0009	.0016	.0021	.0036	.0018	0	.0021	.0014	.0006	.0016	.0016	.0016	.0016	.0015	.0024	.0023
Total .....	.2951	.5439	.6940	1.2099	.5976	0	.6856	.4841	.2043	.5306	.5477	.5360	.5370	.4954	.7875	.7653

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	11.0103	11.0104	11.0105	11.0106	11.0107	11.0201	11.0202	11.0203	11.0204	11.0205	11.0206	11.0207	11.0231	11.0232	11.0241	11.0250
1	0.0036	0.0037	0.0037	0.0040	0.0034	0.0039	0.0038	0.0036	0.0038	0.0040	0.0039	0.0040	0.0039	0.0041	0.0038	0.0043
2 .....	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0026	.0034	.0035	.0027	.0030	.0029	.0026	.0025	.0032	.0029	.0035	.0026	.0031	.0030	.0031	.0031
5 .....	.0015	.0012	.0017	.0024	.0012	.0009	.0014	.0013	.0017	.0014	.0020	.0015	.0016	.0017	.0020	.0013
6 .....	.2735	.2411	.2190	.3133	.2921	.3790	.3285	.3554	.4265	.4132	.3822	.3361	.2868	.3130	.2833	.4419
7 .....	.0093	.0093	.0100	.0096	.0096	.0092	.0092	.0091	.0093	.0093	.0095	.0096	.0096	.0097	.0096	.0092
8 .....	.0061	.0062	.0059	.0068	.0063	.0069	.0064	.0064	.0069	.0069	.0067	.0066	.0064	.0065	.0063	.0073
9 .....	.0008	.0009	.0005	.0003	.0004	.0004	.0010	.0003	.0003	.0007	.0007	.0008	.0007	.0009	.0007	.0007
10 .....	.0042	.0042	.0039	.0047	.0046	.0047	.0044	.0044	.0048	.0048	.0048	.0045	.0044	.0044	.0044	.0050
11 .....	.0020	.0021	.0023	.0020	.0020	.0018	.0022	.0017	.0016	.0019	.0018	.0023	.0020	.0019	.0019	.0019
12 .....	.0058	.0062	.0072	.0061	.0058	.0059	.0057	.0056	.0060	.0058	.0061	.0059	.0059	.0058	.0059	.0060
13 .....	.0080	.0065	.0123	.0067	.0057	.0054	.0073	.0050	.0059	.0071	.0063	.0081	.0073	.0064	.0066	.0070
14 .....	.0058	.0040	.0041	.0045	.0031	.0025	.0035	.0038	.0021	.0034	.0024	.0040	.0044	.0038	.0035	.0028
15 .....	.0331	.0146	.0367	.0084	.0113	.0055	.0091	.0064	.0057	.0064	.0067	.0115	.0060	.0089	.0100	.0065
16 .....	.0155	.0156	.0142	.0187	.0143	.0104	.0130	.0170	.0169	.0125	.0203	.0164	.0172	.0182	.0218	.0127
17 .....	.0046	.0052	.0037	.0053	.0062	.0036	.0049	.0053	.0034	.0040	.0036	.0050	.0059	.0051	.0052	.0035
18 .....	.0202	.0291	.0180	.0230	.0368	.0223	.0260	.0290	.0173	.0229	.0178	.0256	.0269	.0269	.0246	.0163
19 .....	.0067	.0066	.0031	.0057	.0050	.0057	.0068	.0045	.0081	.0056	.0044	.0048	.0081	.0055	.0071	.0046
20 .....	.0107	.0117	.0136	.0120	.0094	.0130	.0127	.0218	.0057	.0118	.0092	.0152	.0137	.0139	.0120	.0108
21 .....	.0004	.0005	.0004	.0005	.0005	.0005	.0004	.0004	.0005	.0005	.0005	.0005	.0005	.0004	.0004	.0005
22 .....	.0007	.0008	.0008	.0007	.0007	.0009	.0008	.0011	.0008	.0008	.0007	.0009	.0008	.0007	.0008	.0008
23 .....	.0020	.0021	.0014	.0030	.0024	.0021	.0025	.0018	.0011	.0027	.0026	.0029	.0037	.0026	.0025	.0027
24 .....	.0011	.0016	.0012	.0014	.0020	.0013	.0012	.0011	.0012	.0013	.0012	.0012	.0012	.0013	.0012	.0013
25 .....	.0269	.0256	.0284	.0246	.0240	.0224	.0241	.0226	.0219	.0235	.0247	.0246	.0253	.0235	.0246	.0226
26 .....	.0104	.0102	.0109	.0105	.0101	.0102	.0101	.0101	.0100	.0100	.0102	.0107	.0106	.0104	.0100	.0102
27 .....	.0033	.0033	.0034	.0034	.0032	.0033	.0032	.0032	.0032	.0033	.0033	.0034	.0033	.0034	.0033	.0034
28 .....	.0532	.0465	.0505	.0443	.0456	.0394	.0450	.0403	.0346	.0415	.0390	.0447	.0470	.0449	.0443	.0383
29 .....	.0440	.0424	.1107	.0472	.0455	.0479	.0442	.0442	.0479	.0479	.0469	.0459	.0454	.0465	.0452	.0504
30 .....	.0158	.0160	.0156	.0174	.0165	.0177	.0167	.0164	.0166	.0169	.0169	.0172	.0170	.0172	.0169	.0175
31 .....	.0115	.0110	.0109	.0122	.0116	.0127	.0119	.0119	.0125	.0125	.0125	.0123	.0118	.0121	.0118	.0130
32 .....	.0031	.0030	.0034	.0034	.0032	.0035	.0033	.0031	.0033	.0033	.0033	.0034	.0033	.0033	.0032	.0035
33 .....	.0065	.0063	.0064	.0071	.0066	.0073	.0068	.0066	.0070	.0070	.0069	.0070	.0069	.0070	.0068	.0073
34 .....	.0058	.0058	.0059	.0065	.0061	.0066	.0061	.0060	.0066	.0065	.0066	.0063	.0062	.0063	.0062	.0071
35 .....	.0873	.0901	.0409	.1379	.1007	.1300	.0998	.0731	.1012	.0859	.1014	.1078	.1180	.1166	.1159	.1117
36 .....	.0148	.0207	.0146	.0181	.0162	.0160	.0159	.0152	.0159	.0163	.0153	.0158	.0156	.0153	.0161	.0171
37 .....	.0329	.0310	.0315	.0364	.0336	.0378	.0349	.0348	.0382	.0379	.0370	.0361	.0345	.0354	.0340	.0400
38 .....	.0173	.0203	.0186	.0206	.0192	.0207	.0203	.0190	.0214	.0221	.0248	.0201	.0217	.0210	.0214	.0221
39 .....	.0023	.0021	.0022	.0025	.0023	.0026	.0024	.0024	.0026	.0026	.0025	.0025	.0024	.0024	.0023	.0027
Total .....	.7532	.7106	.7214	.8343	.7702	.8666	.7984	.7964	.8757	.8672	.8484	.8278	.7891	.8102	.7790	.9172

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	11.0301	11.0302	11.0303	11.0304	11.0305	11.0306	11.0307	11.0308	11.0400	11.0501	11.0502	11.0601	11.0602	11.0603	11.0701	11.0702
1	0.0034	0.0042	0.0036	0.0045	0.0038	0.0033	0.0034	0.0033	0.0047	0.0041	0.0033	0.0019	0.0021	0.0019	0	0.0028
2 .....	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	0	.0001
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0028	.0024	.0031	.0026	.0027	.0031	.0027	.0044	.0056	.0035	.0047	.0019	.0019	.0010	0	.0060
5 .....	.0008	.0004	.0015	.0003	.0005	.0017	.0021	.0037	.0055	.0014	.0017	.0006	0	0	0	.0017
6 .....	.3347	.4277	.2472	.3629	.2774	.2424	.1970	.1830	.2971	.3565	.3049	.2470	.3119	.3154	0	.2251
7 .....	.0080	.0088	.0090	.0094	.0085	.0087	.0088	.0090	.0089	.0093	.0082	.0051	.0045	.0035	0	.0079
8 .....	.0059	.0078	.0063	.0083	.0067	.0060	.0059	.0057	.0059	.0063	.0055	.0035	.0038	.0035	0	.0051
9 .....	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0002	.0002	.0008	.0004	.0001	.0001	.0001	0	.0002
10 .....	.0040	.0054	.0043	.0056	.0047	.0042	.0041	.0038	.0040	.0044	.0038	.0024	.0026	.0024	0	.0039
11 .....	.0014	.0016	.0015	.0017	.0014	.0014	.0015	.0014	.0015	.0021	.0020	.0007	.0007	.0006	0	.0012
12 .....	.0051	.0063	.0059	.0070	.0058	.0055	.0058	.0059	.0052	.0055	.0048	.0028	.0046	.0023	0	.0049
13 .....	.0061	.0041	.0053	.0043	.0045	.0048	.0060	.0086	.0177	.0098	.0083	.0044	.0024	.0018	0	.0062
14 .....	.0022	.0018	.0023	.0020	.0019	.0023	.0022	.0018	.0018	.0026	.0039	.0008	.0008	.0007	0	.0019
15 .....	.0033	.0023	.0029	.0019	.0019	.0017	.0021	.0037	.0022	.0361	.0059	.0009	.0008	.0007	0	.0019
16 .....	.0065	.0030	.0129	.0025	.0047	.0166	.0241	.0326	.0219	.0153	.0120	.0045	.0005	.0004	0	.0116
17 .....	.0285	.0020	.0055	.0018	.0049	.0093	.0056	.0040	.0029	.0029	.0052	.0049	.0004	.0002	0	.0025
18 .....	.0068	.0059	.0205	.0076	.0125	.0192	.0172	.0209	.0147	.0192	.0166	.0046	.0017	.0014	0	.0152
19 .....	.0029	.0019	.0037	.0024	.0026	.0037	.0114	.0033	.0023	.0033	.0024	.0062	.0018	.0010	0	.0026
20 .....	.0103	.0098	.0161	.0037	.0056	.0040	.0059	.0119	.0097	.0062	.0070	.0015	.0014	.0011	0	.0031
21 .....	.0004	.0005	.0004	.0005	.0005	.0005	.0004	.0005	.0005	.0004	.0005	.0002	.0002	.0002	0	.0006
22 .....	.0006	.0008	.0008	.0007	.0007	.0007	.0007	.0008	.0008	.0006	.0006	.0003	.0003	.0003	0	.0007
23 .....	.0013	.0012	.0018	.0012	.0014	.0014	.0013	.0015	.0010	.0011	.0010	.0005	.0005	.0004	0	.0014
24 .....	.0010	.0013	.0011	.0014	.0012	.0011	.0011	.0011	.0023	.0012	.0010	.0006	.0007	.0005	0	.0009
25 .....	.0191	.0198	.0222	.0198	.0195	.0232	.0251	.0300	.0294	.0255	.0223	.0133	.0080	.0067	0	.0223
26 .....	.0086	.0103	.0096	.0111	.0095	.0095	.0099	.0096	.0089	.0097	.0087	.0057	.0065	.0038	0	.0083
27 .....	.0029	.0032	.0031	.0034	.0030	.0030	.0030	.0031	.0032	.0033	.0029	.0019	.0017	.0014	0	.0027
28 .....	.0389	.0276	.0368	.0283	.0329	.0333	.0409	.0350	.0319	.0470	.0374	.0270	.0126	.0103	0	.0274
29 .....	.0431	.0521	.0523	.0532	.0444	.0404	.0402	.0429	.0403	.0438	.0412	.0225	.0246	.0227	0	.0357
30 .....	.0141	.0186	.0169	.0208	.0181	.0171	.0174	.0167	.0154	.0146	.0144	.0074	.0076	.0066	0	.0133
31 .....	.0103	.0134	.0114	.0142	.0121	.0114	.0113	.0109	.0109	.0116	.0103	.0060	.0065	.0059	0	.0100
32 .....	.0029	.0039	.0035	.0043	.0036	.0032	.0032	.0031	.0030	.0031	.0027	.0019	.0021	.0015	0	.0027
33 .....	.0058	.0081	.0071	.0090	.0075	.0067	.0068	.0064	.0061	.0063	.0054	.0032	.0037	.0030	0	.0057
34 .....	.0056	.0074	.0061	.0078	.0069	.0061	.0059	.0059	.0058	.0062	.0053	.0032	.0035	.0031	0	.0052
35 .....	.0852	.2462	.1940	.3500	.2538	.1855	.1942	.1603	.1001	.0580	.0685	.0205	.0283	.0115	0	.1365
36 .....	.0135	.0173	.0146	.0187	.0150	.0138	.0141	.0139	.0136	.0145	.0126	.0077	.0081	.0073	0	.0122
37 .....	.0322	.0435	.0345	.0456	.0367	.0328	.0321	.0307	.0323	.0346	.0301	.0195	.0214	.0198	0	.0281
38 .....	.0172	.0216	.0191	.0232	.0212	.0216	.0198	.0209	.0209	.0195	.0206	.0091	.0097	.0088	0	.0246
39 .....	.0022	.0030	.0024	.0031	.0025	.0022	.0022	.0021	.0022	.0024	.0021	.0013	.0015	.0014	0	.0019
Total .....	.7379	.9959	.7893	1.0454	.8411	.7516	.7359	.7030	.7407	.7929	.6882	.4459	.4895	.4532	0	.6446

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	11.0703	11.0704	12.0100	12.0201	12.0202	12.0203	12.0204	12.0205	12.0206	12.0207	12.0208	12.0209	12.0210	12.0211	12.0212	12.0213
1	0.0037	0.0045	0.0040	0.0040	0.0039	0.0030	0.0145	0.0039	0.0298	0.0031	0.0034	0.0034	0.0038	0.0046	0.0038	0.0038
2 .....	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0040	.0033	.0035	.0030	.0039	.0044	.0030	.0025	.0029	.0039	.0028	.0035	.0026	.0044	.0036	.0035
5 .....	.0016	.0018	.0013	.0010	.0021	.0057	.0003	.0015	.0007	.0019	.0031	.0038	.0018	.0027	.0053	.0041
6 .....	.4337	.5074	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0085	.0085	.3283	.4908	.2939	.2423	.5354	.5650	.4028	.3836	.3736	.4277	.4898	.3173	.3723	.5448
8 .....	.0068	.0071	.0065	.0070	.0058	.0049	.0067	.0071	.0062	.0058	.0060	.0062	.0067	.0056	.0059	.0071
9 .....	.0003	.0003	.0008	.0008	.0007	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003
10 .....	.0048	.0050	.0047	.0048	.0040	.0034	.0047	.0049	.0043	.0040	.0047	.0042	.0047	.0038	.0040	.0050
11 .....	.0014	.0015	.0022	.0022	.0025	.0014	.0014	.0014	.0014	.0015	.0015	.0014	.0014	.0014	.0016	.0015
12 .....	.0053	.0053	.0066	.0056	.0054	.0047	.0048	.0051	.0050	.0047	.0049	.0048	.0051	.0049	.0049	.0052
13 .....	.0054	.0072	.0150	.0094	.0205	.0125	.0054	.0042	.0055	.0117	.0091	.0129	.0079	.0109	.0112	.0073
14 .....	.0021	.0020	.0043	.0055	.0046	.0032	.0019	.0016	.0018	.0018	.0018	.0046	.0030	.0027	.0037	.0027
15 .....	.0031	.0054	.0104	.0074	.0188	.0091	.0023	.0086	.0026	.0017	.0018	.0020	.0024	.0030	.0039	.0026
16 .....	.0099	.0077	.0094	.0099	.0147	.0181	.0037	.0030	.0063	.0122	.0233	.0135	.0132	.0099	.0134	.0152
17 .....	.0018	.0018	.0034	.0033	.0045	.0061	.0047	.0034	.0065	.0053	.0053	.0047	.0020	.0057	.0069	.0026
18 .....	.0088	.0111	.0206	.0192	.0186	.0166	.0050	.0079	.0199	.0240	.0198	.0128	.0145	.0152	.0111	.0123
19 .....	.0020	.0021	.0046	.0042	.0042	.0033	.0017	.0019	.0028	.0028	.0030	.0028	.0035	.0027	.0039	.0023
20 .....	.0028	.0093	.0097	.0109	.0090	.0150	.0060	.0115	.0161	.0068	.0047	.0035	.0037	.0242	.0167	.0034
21 .....	.0005	.0005	.0005	.0005	.0004	.0004	.0005	.0004	.0004	.0005	.0004	.0005	.0005	.0005	.0004	.0005
22 .....	.0007	.0008	.0007	.0008	.0006	.0007	.0006	.0008	.0008	.0007	.0007	.0006	.0007	.0010	.0008	.0007
23 .....	.0011	.0010	.0025	.0021	.0015	.0018	.0011	.0011	.0017	.0015	.0017	.0012	.0013	.0015	.0014	.0013
24 .....	.0011	.0015	.0013	.0012	.0012	.0010	.0011	.0011	.0011	.0010	.0010	.0011	.0011	.0011	.0013	.0012
25 .....	.0224	.0210	.0274	.0235	.0289	.0274	.0170	.0206	.0191	.0213	.0241	.0242	.0207	.0263	.0268	.0237
26 .....	.0092	.0092	.0111	.0104	.0091	.0081	.0085	.0085	.0090	.0077	.0077	.0084	.0136	.0085	.0080	.0090
27 .....	.0031	.0031	.0035	.0034	.0032	.0029	.0030	.0030	.0030	.0029	.0029	.0030	.0031	.0029	.0030	.0032
28 .....	.0272	.0290	.0479	.0455	.0542	.0417	.0271	.0317	.0366	.0387	.0388	.0336	.0331	.0384	.0376	.0311
29 .....	.0456	.0479	.1086	.0494	.0451	.0409	.0468	.0493	.0494	.0395	.0391	.0411	.0449	.0469	.0451	.0480
30 .....	.0156	.0159	.0176	.0180	.0170	.0125	.0140	.0143	.0137	.0131	.0134	.0133	.0144	.0126	.0128	.0147
31 .....	.0123	.0126	.0116	.0125	.0107	.0087	.0114	.0119	.0108	.0102	.0101	.0106	.0114	.0099	.0100	.0121
32 .....	.0033	.0033	.0035	.0033	.0029	.0025	.0031	.0032	.0030	.0027	.0027	.0028	.0031	.0027	.0028	.0032
33 .....	.0068	.0068	.0067	.0067	.0058	.0050	.0060	.0063	.0059	.0054	.0055	.0057	.0061	.0053	.0055	.0064
34 .....	.0064	.0066	.0063	.0065	.0055	.0049	.0062	.0064	.0058	.0057	.0060	.0057	.0061	.0055	.0055	.0066
35 .....	.1269	.0794	.0418	.0354	.0393	.0419	.0302	.0358	.0409	.0294	.0326	.0416	.0415	.0463	.0353	.0380
36 .....	.0150	.0155	.0160	.0160	.0145	.0117	.0152	.0156	.0139	.0138	.0165	.0142	.0156	.0142	.0136	.0157
37 .....	.0379	.0397	.0349	.0386	.0309	.0269	.0372	.0396	.0343	.0315	.0315	.0338	.0367	.0303	.0321	.0393
38 .....	.0233	.0211	.0190	.0194	.0164	.0206	.0195	.0194	.0184	.0193	.0159	.0177	.0178	.0186	.0190	.0191
39 .....	.0026	.0027	.0024	.0026	.0021	.0018	.0026	.0027	.0024	.0022	.0022	.0023	.0025	.0021	.0022	.0027
Total .....	.8672	.9091	.7982	.8850	.7068	.6158	.8529	.9059	.7851	.7223	.7219	.7734	.8406	.6941	.7358	.9004

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	12.0214	12.0215	12.0216	13.0100	13.0200	13.0300	13.0500	13.0600	13.0700	14.0101	14.0102	14.0103	14.0104	14.0250	14.0400	14.0500
1	0.0038	0.0032	0.0042	0.0035	0.0029	0.0024	0.0032	0.0026	0.0039	0.0158	0.0040	0.0427	0.0210	0.0885	0.0623	0.0396
2 .....	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	0	.0001	.0001	.0001	.0001	.0001	.0001
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0038	.0027	.0044	.0020	.0025	.0017	.0023	.0021	.0026	.0009	.0013	.0020	.0018	.0022	.0022	.0023
5 .....	.0059	.0005	.0051	.0001	.0001	.0001	.0001	.0002	.0001	.0001	0	.0001	.0001	.0002	.0002	.0001
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.5162	.4786	.4093	.0100	.0111	.0095	.0103	.0104	.0102	.0030	.0046	.0065	.0058	.0070	.0064	.0081
8 .....	.0067	.0060	.0062	.0064	.0051	.0044	.0058	.0047	.0073	.0735	.1387	.1671	.1757	.0746	.0789	.1811
9 .....	.0003	.0002	.0003	.0003	.0003	.0002	.0002	.0002	.0003	.0001	.0001	.0002	.0002	.0002	.0002	.0002
10 .....	.0046	.0041	.0043	.0043	.0038	.0029	.0039	.0032	.0050	.0011	.0019	.0023	.0023	.0022	.0020	.0028
11 .....	.0014	.0012	.0016	.0016	.0017	.0010	.0019	.0025	.0017	.0019	.0034	.0051	.0059	.0055	.0056	.0172
12 .....	.0049	.0043	.0050	.0104	.0088	.0046	.0090	.0084	.0077	.0061	.0155	.0059	.0080	.0108	.0098	.0081
13 .....	.0117	.0062	.0128	.0036	.0033	.0028	.0074	.0069	.0065	.0016	.0021	.0047	.0035	.0042	.0035	.0044
14 .....	.0028	.0027	.0052	.0040	.0019	.0034	.0044	.0035	.0026	.0008	.0025	.0013	.0012	.0026	.0035	.0040
15 .....	.0024	.0023	.0049	.0016	.0035	.0012	.0028	.0016	.0020	.0004	.0008	.0009	.0009	.0010	.0009	.0037
16 .....	.0079	.0064	.0154	.0011	.0011	.0008	.0013	.0010	.0012	.0003	.0005	.0006	.0005	.0011	.0028	.0012
17 .....	.0013	.0014	.0045	.0025	.0091	.0293	.0113	.0074	.0042	.0002	.0006	.0003	.0009	.0005	.0014	.0006
18 .....	.0074	.0067	.0143	.0065	.3240	.0055	.3546	.3089	.5563	.0010	.0028	.0013	.0044	.0024	.0069	.0029
19 .....	.0016	.0056	.0031	.0068	.0067	.0056	.0073	.0063	.0040	.0006	.0008	.0011	.0011	.0014	.0030	.0018
20 .....	.0055	.0030	.0126	.0520	.0138	.0056	.0264	.0029	.0158	.0008	.0012	.0014	.0015	.0015	.0015	.0019
21 .....	.0004	.0004	.0005	.0004	.0003	.0006	.0004	.0003	.0004	.0001	.0002	.0002	.0002	.0002	.0002	.0003
22 .....	.0007	.0006	.0009	.4044	.0038	.2653	.0006	.0005	.0030	.0002	.0003	.0004	.0003	.0003	.0003	.0004
23 .....	.0009	.0009	.0012	.0022	.0013	.0007	.0010	.0008	.0011	.0003	.0005	.0006	.0010	.0006	.0006	.0007
24 .....	.0015	.0010	.0012	.0013	.0011	.0008	.0016	.0009	.0012	.0004	.0006	.0006	.0007	.0007	.0007	.0009
25 .....	.0274	.0220	.0265	.0174	.0160	.0181	.0241	.0187	.0248	.0095	.0159	.0169	.0147	.0261	.0211	.0250
26 .....	.0085	.0077	.0090	.0130	.0113	.0070	.0115	.0095	.0111	.0048	.0065	.0062	.0077	.0068	.0070	.0090
27 .....	.0031	.0029	.0032	.0032	.0045	.0029	.0035	.0038	.0046	.0013	.0021	.0029	.0030	.0030	.0037	.0037
28 .....	.0272	.0280	.0366	.0329	.0279	.0358	.0443	.0311	.0330	.0177	.0487	.0266	.0339	.0444	.0339	.0491
29 .....	.0440	.0387	.0440	.0400	.0320	.0275	.0363	.0295	.0466	.0105	.0177	.0207	.0210	.0210	.0189	.0261
30 .....	.0141	.0129	.0147	.0155	.0129	.0102	.0131	.0104	.0151	.0059	.0079	.0093	.0132	.0133	.0143	.0126
31 .....	.0115	.0104	.0111	.0109	.0088	.0077	.0100	.0083	.0125	.0033	.0049	.0058	.0060	.0064	.0057	.0075
32 .....	.0031	.0027	.0029	.0031	.0024	.0021	.0028	.0022	.0033	.0013	.0015	.0017	.0018	.0026	.0022	.0025
33 .....	.0061	.0054	.0059	.0075	.0064	.0049	.0071	.0059	.0077	.0025	.0036	.0036	.0043	.0039	.0038	.0048
34 .....	.0061	.0056	.0058	.0059	.0052	.0041	.0057	.0048	.0069	.0017	.0028	.0036	.0049	.0035	.0033	.0047
35 .....	.0348	.0293	.0372	.0475	.0413	.0269	.0406	.0318	.0445	.0144	.0203	.0219	.0270	.0250	.0230	.0322
36 .....	.0149	.0129	.0139	.0166	.0125	.0105	.0143	.0114	.0161	.0041	.0071	.0081	.0086	.0081	.0074	.0104
37 .....	.0372	.0335	.0342	.0346	.0275	.0237	.0314	.0254	.0404	.0099	.0152	.0201	.0192	.0189	.0168	.0226
38 .....	.0190	.0159	.0199	.0166	.0139	.0115	.0157	.0128	.0189	.0049	.0080	.0095	.0094	.0099	.0088	.0120
39 .....	.0025	.0023	.0023	.0024	.0019	.0016	.0022	.0017	.0028	.0006	.0010	.0012	.0012	.0012	.0011	.0015
Total .....	.8516	.7683	.7844	.7923	.6304	.5429	.7186	.5828	.9255	.2019	.3455	.4035	.4129	.4018	.3642	.5060

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	14.0600	14.0700	14.0800	14.0900	14.1000	14.1100	14.1200	14.1301	14.1302	14.1401	14.1402	14.1403	14.1501	14.1502	14.1600	14.1700
1	0.0898	0.0026	0.0176	0.0475	0.0599	0.0168	0.0035	0.0664	0.0121	0.0504	0.0147	0.0105	0.0066	0.0181	0.0526	0.0272
2 .....	.0001	.0443	.0001	.0001	.0001	.0001	.0539	.0001	.0001	.0001	.0001	.0001	.0003	.0003	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0022	.0030	.0024	.0029	.0031	.0021	.0028	.0031	.0022	.0021	.0017	.0017	.0017	.0023	.0023	.0032
5 .....	.0002	.0001	.0004	.0004	.0001	.0007	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0004	.0001	.0001
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0076	.0076	.0069	.0079	.0077	.0063	.0069	.0084	.0071	.0072	.0065	.0061	.0057	.0063	.0072	.0070
8 .....	.1189	.1824	.1345	.1534	.1786	.1228	.1431	.1630	.1932	.0829	.1313	.1323	.0991	.0867	.0664	.0934
9 .....	.0002	.0005	.0002	.0002	.0002	.0002	.0006	.0003	.0002	.0002	.0002	.0001	.0002	.0003	.0001	.0001
10 .....	.0025	.0031	.0026	.0030	.0032	.0024	.0028	.0034	.0028	.0027	.0021	.0021	.0021	.0023	.0019	.0020
11 .....	.0075	.0038	.0063	.0064	.0094	.0058	.0052	.0102	.0136	.0029	.0127	.0148	.0088	.0021	.0025	.0032
12 .....	.0089	.0149	.0147	.0098	.0178	.0199	.0045	.0118	.0109	.0057	.0139	.0102	.0161	.0058	.0055	.0089
13 .....	.0044	.0046	.0041	.0044	.0040	.0038	.0045	.0052	.0042	.0032	.0027	.0030	.0055	.0190	.0030	.0029
14 .....	.0040	.0022	.0016	.0016	.0020	.0118	.0023	.0099	.0116	.0009	.0014	.0019	.0046	.0022	.0008	.0009
15 .....	.0011	.0012	.0015	.0031	.0028	.0012	.0010	.0034	.0013	.0008	.0010	.0009	.0008	.0008	.0008	.0008
16 .....	.0009	.0010	.0156	.0142	.0008	.0261	.0007	.0010	.0011	.0005	.0006	.0007	.0006	.0009	.0005	.0005
17 .....	.0005	.0031	.0050	.0046	.0007	.0006	.0006	.0021	.0008	.0003	.0005	.0004	.0023	.0003	.0003	.0003
18 .....	.0033	.0153	.0259	.0237	.0028	.0036	.0022	.0096	.0035	.0011	.0021	.0018	.0114	.0016	.0011	.0011
19 .....	.0016	.0020	.0017	.0021	.0021	.0018	.0022	.0020	.0019	.0015	.0013	.0012	.0014	.0014	.0013	.0019
20 .....	.0017	.0020	.0017	.0019	.0020	.0016	.0017	.0021	.0018	.0013	.0015	.0015	.0014	.0014	.0013	.0014
21 .....	.0003	.0003	.0002	.0003	.0003	.0003	.0002	.0003	.0003	.0002	.0002	.0002	.0002	.0002	.0002	.0002
22 .....	.0004	.0101	.0004	.0005	.0004	.0004	.0123	.0005	.0004	.0007	.0003	.0004	.0004	.0005	.0008	.0005
23 .....	.0006	.0012	.0007	.0008	.0008	.0009	.0007	.0008	.0007	.0005	.0006	.0005	.0006	.0007	.0004	.0005
24 .....	.0008	.0009	.0009	.0008	.0010	.0009	.0007	.0010	.0009	.0006	.0009	.0008	.0008	.0006	.0006	.0007
25 .....	.0273	.0175	.0219	.0299	.0282	.0256	.0199	.0351	.0225	.0317	.0159	.0231	.0177	.0332	.0303	.0305
26 .....	.0088	.0081	.0093	.0083	.0099	.0087	.0064	.0103	.0093	.0062	.0099	.0085	.0092	.0067	.0060	.0070
27 .....	.0031	.0038	.0041	.0048	.0053	.0054	.0024	.0048	.0035	.0024	.0027	.0028	.0029	.0027	.0028	.0065
28 .....	.0322	.0528	.0580	.0597	.0558	.0390	.0507	.0651	.0529	.0551	.0357	.0385	.0375	.0527	.0522	.0521
29 .....	.0237	.0271	.0237	.0272	.0285	.0217	.0233	.0294	.0250	.0188	.0190	.0191	.0175	.0189	.0177	.0186
30 .....	.0142	.0126	.0107	.0119	.0122	.0100	.0104	.0128	.0106	.0101	.0090	.0093	.0090	.0126	.0106	.0098
31 .....	.0071	.0097	.0069	.0079	.0082	.0067	.0088	.0085	.0072	.0064	.0057	.0057	.0053	.0059	.0062	.0062
32 .....	.0028	.0022	.0020	.0024	.0026	.0018	.0019	.0027	.0022	.0022	.0017	.0017	.0015	.0018	.0022	.0019
33 .....	.0048	.0049	.0052	.0048	.0056	.0047	.0039	.0057	.0050	.0039	.0088	.0086	.0086	.0038	.0073	.0073
34 .....	.0039	.0047	.0042	.0044	.0050	.0040	.0039	.0049	.0043	.0030	.0031	.0042	.0030	.0030	.0030	.0031
35 .....	.0282	.0310	.0298	.0294	.0415	.0266	.0262	.0339	.0311	.0228	.0296	.0265	.0269	.0314	.0219	.0249
36 .....	.0091	.0113	.0094	.0107	.0113	.0086	.0096	.0114	.0098	.0079	.0078	.0079	.0073	.0079	.0072	.0075
37 .....	.0213	.0231	.0202	.0231	.0241	.0185	.0198	.0249	.0214	.0158	.0162	.0163	.0149	.0158	.0149	.0156
38 .....	.0109	.0127	.0109	.0125	.0130	.0100	.0112	.0137	.0112	.0091	.0088	.0088	.0081	.0096	.0084	.0088
39 .....	.0014	.0016	.0014	.0016	.0017	.0013	.0014	.0017	.0015	.0011	.0011	.0011	.0010	.0011	.0010	.0011
Total .....	.4558	.5293	.4622	.5281	.5527	.4224	.4522	.5697	.4883	.3626	.3710	.3736	.3411	.3613	.3413	.3577

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	14.1801	14.1802	14.1900	14.2001	14.2002	14.2003	14.2101	14.2102	14.2103	14.2104	14.2200	14.2300	14.2400	14.2500	14.2600	14.2700
1	0.0067	0.0062	0.0758	0.0220	0.0104	0.0042	0.0052	0.0381	0.0401	0.0020	0.0056	0.0067	0.1501	0.0077	0.0036	0.0035
2 .....	.0001	.0001	.0001	.0001	.0001	0	.0001	.0001	.0001	0	.0001	0	.0001	0	0	.0097
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0020	.0018	.0044	.0019	.0018	.0018	.0023	.0038	.0024	.0012	.0022	.0016	.0042	.0013	.0016	.0047
5 .....	.0001	.0001	.0001	.0001	.0001	.0001	.0008	.0001	.0008	.0005	.0005	.0001	.0004	0	.0004	.0002
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0064	.0057	.0078	.0067	.0062	.0057	.0073	.0076	.0068	.0035	.0104	.0053	.0115	.0030	.0036	.0085
8 .....	.3038	.2271	.1498	.1813	.1341	.1419	.1224	.0792	.0987	.0505	.1711	.0848	.1154	.0293	.0623	.1935
9 .....	.0002	.0002	.0002	.0002	.0002	.0002	.0001	.0001	.0002	.0001	.0002	.0001	.0003	.0001	.0001	.0003
10 .....	.0030	.0025	.0026	.0025	.0022	.0020	.0024	.0023	.0027	.0013	.0027	.0018	.0035	.0010	.0013	.0032
11 .....	.0048	.0125	.0046	.0100	.0062	.0097	.0069	.0012	.0059	.0026	.0049	.0027	.0020	.0007	.0030	.0023
12 .....	.0077	.0076	.0069	.0083	.0097	.0118	.0161	.0081	.0198	.0140	.0136	.0248	.0073	.0026	.0042	.0084
13 .....	.0029	.0031	.0042	.0033	.0030	.0038	.0040	.0035	.0039	.0018	.0043	.0053	.0081	.0012	.0015	.0055
14 .....	.0020	.0038	.0032	.0031	.0049	.0048	.0017	.0009	.0013	.0021	.0069	.0022	.0060	.0008	.0005	.0344
15 .....	.0010	.0010	.0010	.0012	.0009	.0008	.0011	.0009	.0039	.0053	.0012	.0008	.0014	.0004	.0005	.0015
16 .....	.0008	.0009	.0007	.0026	.0009	.0006	.0301	.0006	.0316	.0196	.0159	.0011	.0014	.0003	.0018	.0014
17 .....	.0004	.0004	.0004	.0008	.0021	.0007	.0063	.0003	.0004	.0003	.0050	.0008	.0005	.0001	.0002	.0005
18 .....	.0015	.0017	.0015	.0038	.0105	.0030	.0323	.0014	.0023	.0011	.0257	.0039	.0023	.0006	.0009	.0023
19 .....	.0015	.0017	.0019	.0019	.0020	.0017	.0024	.0015	.0020	.0016	.0025	.0013	.0021	.0008	.0010	.0025
20 .....	.0018	.0016	.0016	.0016	.0016	.0016	.0017	.0016	.0017	.0010	.0021	.0015	.0023	.0007	.0009	.0023
21 .....	.0003	.0002	.0003	.0002	.0002	.0002	.0002	.0003	.0003	.0001	.0003	.0002	.0004	.0001	.0001	.0003
22 .....	.0004	.0004	.0007	.0004	.0005	.0003	.0004	.0005	.0004	.0002	.0004	.0004	.0005	.0003	.0003	.0027
23 .....	.0007	.0006	.0007	.0008	.0008	.0009	.0006	.0005	.0007	.0004	.0007	.0006	.0008	.0002	.0004	.0010
24 .....	.0009	.0008	.0007	.0008	.0007	.0007	.0009	.0007	.0009	.0006	.0010	.0011	.0010	.0003	.0004	.0010
25 .....	.0183	.0173	.0327	.0206	.0267	.0163	.0209	.0497	.0244	.0119	.0216	.0194	.0258	.0132	.0212	.0350
26 .....	.0082	.0077	.0067	.0077	.0075	.0071	.0092	.0081	.0098	.0065	.0125	.0131	.0092	.0032	.0056	.0105
27 .....	.0030	.0031	.0079	.0031	.0029	.0026	.0043	.0074	.0037	.0022	.0035	.0022	.0076	.0025	.0036	.0076
28 .....	.0262	.0329	.0424	.0459	.0481	.0355	.0302	.0699	.0633	.0325	.0430	.0408	.0788	.0519	.0425	.0731
29 .....	.0282	.0235	.0250	.0232	.0209	.0182	.0222	.0219	.0235	.0122	.0255	.0169	.0322	.0089	.0118	.0291
30 .....	.0115	.0097	.0127	.0113	.0112	.0088	.0124	.0178	.0142	.0083	.0132	.0107	.0199	.0062	.0085	.0134
31 .....	.0079	.0067	.0079	.0068	.0061	.0053	.0078	.0074	.0074	.0070	.0075	.0051	.0073	.0029	.0038	.0088
32 .....	.0022	.0018	.0024	.0020	.0018	.0015	.0018	.0024	.0022	.0011	.0022	.0015	.0049	.0009	.0011	.0024
33 .....	.0049	.0043	.0041	.0043	.0040	.0039	.0052	.0046	.0054	.0034	.0056	.0064	.0062	.0019	.0026	.0055
34 .....	.0041	.0036	.0040	.0037	.0035	.0053	.0034	.0037	.0039	.0020	.0042	.0029	.0063	.0016	.0021	.0049
35 .....	.0411	.0295	.0253	.0313	.0376	.0224	.0320	.0284	.0303	.0190	.0365	.0334	.0384	.0122	.0168	.0343
36 .....	.0107	.0093	.0096	.0094	.0085	.0076	.0088	.0087	.0097	.0053	.0106	.0073	.0128	.0038	.0051	.0116
37 .....	.0242	.0202	.0211	.0199	.0178	.0155	.0189	.0181	.0200	.0104	.0217	.0144	.0269	.0075	.0100	.0247
38 .....	.0126	.0110	.0113	.0109	.0096	.0086	.0102	.0111	.0110	.0057	.0114	.0080	.0159	.0042	.0055	.0132
39 .....	.0017	.0014	.0014	.0014	.0012	.0011	.0013	.0012	.0014	.0007	.0015	.0010	.0018	.0005	.0007	.0017
Total .....	.5538	.4617	.4838	.4549	.4068	.3561	.4337	.4137	.4571	.2381	.4975	.3304	.6156	.1727	.2295	.5652

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	14.2800	14.2900	14.3000	14.3100	14.3200	15.0101	15.0102	15.0103	15.0200	16.0100	16.0200	16.0300	16.0400	17.0100	17.0200	17.0300
1	0.0019	0.0054	0.0028	0.0071	0.0161	0	0.0020	0.0013	0	0.0158	0.0033	0.0204	0.0109	0.0018	0.0032	0.0036
2	0	0	.0001	.0001	.0001	0	.0001	0	0	.0001	.0001	.0001	.0001	0	.0001	.0001
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0019	.0018	.0019	.0017	.0024	0	.0014	.0013	0	.0023	.0025	.0020	.0022	.0015	.0039	.0031
5 .....	.0001	.0002	.0001	.0001	.0003	0	0	0	0	.0001	.0001	.0001	.0001	.0001	.0001	.0001
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0047	.0052	.0077	.0072	.0069	0	.0059	.0036	0	.0070	.0092	.0063	.0064	.0043	.0085	.0094
8 .....	.0525	.0836	.3603	.1798	.1476	0	.2386	.1170	0	.0036	.0052	.0035	.0038	.0023	.0053	.0062
9 .....	.0001	.0001	.0002	.0002	.0002	0	.0002	.0001	0	.2038	.3003	.2107	.2341	.1287	.3061	.4204
10 .....	.0018	.0016	.0035	.0024	.0025	0	.0025	.0018	0	.0025	.0036	.0024	.0026	.0018	.0037	.0042
11 .....	.0030	.0052	.0179	.0135	.0101	0	.0135	.0053	0	.0021	.0018	.0022	.0021	.0015	.0020	.0025
12 .....	.0114	.0109	.0068	.0064	.0120	0	.0057	.0096	0	.0042	.0165	.0032	.0034	.0026	.0165	.0163
13 .....	.0029	.0024	.0032	.0033	.0054	0	.0024	.0028	0	.0043	.0044	.0038	.0039	.0034	.0074	.0035
14 .....	.0065	.0041	.0028	.0138	.0158	0	.0025	.0010	0	.0029	.0120	.0010	.0049	.0049	.0062	.0014
15 .....	.0008	.0007	.0012	.0011	.0012	0	.0010	.0006	0	.0010	.0014	.0009	.0011	.0006	.0013	.0014
16 .....	.0034	.0071	.0007	.0007	.0063	0	.0007	.0004	0	.0011	.0021	.0005	.0006	.0004	.0008	.0008
17 .....	.0020	.0006	.0004	.0004	.0008	0	.0005	.0004	0	.0003	.0005	.0003	.0003	.0003	.0005	.0004
18 .....	.0100	.0034	.0016	.0015	.0039	0	.0021	.0018	0	.0012	.0018	.0011	.0013	.0008	.0019	.0017
19 .....	.0015	.0012	.0025	.0014	.0020	0	.0029	.0014	0	.0018	.0026	.0018	.0019	.0013	.0025	.0031
20 .....	.0013	.0011	.0021	.0016	.0019	0	.0015	.0013	0	.0015	.0023	.0020	.0016	.0009	.0023	.0024
21 .....	.0002	.0002	.0003	.0002	.0002	0	.0002	.0002	0	.0002	.0003	.0002	.0002	.0001	.0004	.0004
22 .....	.0011	.0003	.0004	.0004	.0005	0	.0003	.0002	0	.0003	.0005	.0003	.0004	.0003	.0007	.0005
23 .....	.0005	.0005	.0017	.0008	.0008	0	.0005	.0018	0	.0008	.0011	.0006	.0007	.0005	.0009	.0012
24 .....	.0006	.0006	.0010	.0007	.0008	0	.0008	.0006	0	.0007	.0013	.0006	.0007	.0005	.0013	.0014
25 .....	.0796	.0269	.0208	.0198	.0247	0	.0110	.0129	0	.0146	.0230	.0131	.0183	.0135	.0358	.0260
26 .....	.0065	.0067	.0082	.0073	.0081	0	.0069	.0064	0	.0058	.0136	.0051	.0057	.0041	.0141	.0139
27 .....	.0022	.0035	.0072	.0029	.0035	0	.0023	.0017	0	.0041	.0036	.0035	.0037	.0024	.0056	.0056
28 .....	.0410	.0382	.0191	.0421	.0531	0	.0280	.0172	0	.0317	.0404	.0301	.0317	.0227	.0400	.0252
29 .....	.0174	.0152	.0321	.0217	.0232	0	.0229	.0152	0	.0226	.0323	.0218	.0239	.0140	.0344	.0382
30 .....	.0099	.0081	.0116	.0091	.0106	0	.0119	.0100	0	.0113	.0130	.0098	.0101	.0070	.0143	.0135
31 .....	.0053	.0046	.0091	.0063	.0068	0	.0064	.0045	0	.0064	.0090	.0060	.0067	.0041	.0102	.0101
32 .....	.0015	.0013	.0027	.0020	.0020	0	.0017	.0013	0	.0019	.0027	.0019	.0020	.0012	.0026	.0034
33 .....	.0035	.0036	.0050	.0041	.0045	0	.0040	.0037	0	.0036	.0076	.0033	.0042	.0022	.0074	.0077
34 .....	.0027	.0026	.0070	.0036	.0048	0	.0044	.0025	0	.0077	.0130	.0080	.0086	.0040	.0086	.0137
35 .....	.0207	.0208	.0362	.0248	.0319	0	.0269	.0446	0	.0347	.0413	.0205	.0309	.0150	.0445	.0465
36 .....	.0069	.0061	.0137	.0088	.0105	0	.0104	.0063	0	.0091	.0139	.0088	.0098	.0060	.0135	.0171
37 .....	.0144	.0129	.0278	.0186	.0198	0	.0198	.0131	0	.0193	.0276	.0186	.0206	.0120	.0286	.0330
38 .....	.0085	.0070	.0140	.0094	.0105	0	.0101	.0078	0	.0105	.0160	.0097	.0104	.0062	.0183	.0161
39 .....	.0010	.0009	.0019	.0013	.0014	0	.0014	.0009	0	.0013	.0019	.0013	.0014	.0008	.0020	.0023
Total .....	.3295	.2947	.6357	.4257	.4534	0	.4537	.3008	0	.4422	.6320	.4256	.4715	.2739	.6557	.7564

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	17.0400	17.0500	17.0600	17.0700	17.0900	17.1001	17.1002	18.0101	18.0102	18.0201	18.0202	18.0203	18.0300	18.0400	19.0100	19.0200
1	0.0039	0.0022	0.0024	0.0016	0.0030	0.0021	0.0091	0.0024	0	0.0027	0.0030	0.0034	0.0033	0.0028	0.0024	0.0022
2 .....	.0001	.0001	.0001	0	.0001	.0001	.0001	.0001	0	.0001	.0001	.0001	0	.0001	.0001	.0001
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0024	.0020	.0026	.0013	.0020	.0031	.0028	.0019	0	.0018	.0025	.0031	.0023	.0018	.0012	.0013
5 .....	.0001	.0001	.0002	.0002	.0001	.0003	.0001	.0001	0	.0001	.0001	.0001	.0001	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0077	.0074	.0063	.0041	.0095	.0066	.0079	.0061	0	.0060	.0070	.0076	.0050	.0062	.0055	.0051
8 .....	.0055	.0039	.0039	.0023	.0050	.0036	.0054	.0043	0	.0043	.0049	.0057	.0031	.0046	.0037	.0034
9 .....	.2597	.1919	.2144	.1073	.2655	.1797	.3059	.2646	0	.2859	.3433	.3623	.2049	.0080	.0073	.0119
10 .....	.0032	.0027	.0053	.0016	.0034	.0025	.0035	.0029	0	.0116	.0051	.0038	.0021	.3142	.2503	.1968
11 .....	.0050	.0028	.0017	.0008	.0024	.0041	.0038	.0061	0	.0017	.0025	.0264	.0013	.0017	.0017	.0037
12 .....	.0130	.0147	.0111	.0107	.0162	.0131	.0103	.0126	0	.0039	.0073	.0050	.0027	.0072	.0042	.0046
13 .....	.0044	.0035	.0100	.0033	.0033	.0166	.0059	.0052	0	.0043	.0067	.0064	.0053	.0027	.0019	.0021
14 .....	.0033	.0018	.0044	.0015	.0048	.0037	.0012	.0059	0	.0138	.0029	.0016	.0045	.0017	.0011	.0025
15 .....	.0011	.0010	.0010	.0011	.0012	.0010	.0027	.0010	0	.0011	.0011	.0015	.0007	.0010	.0009	.0022
16 .....	.0007	.0006	.0007	.0114	.0011	.0008	.0008	.0006	0	.0007	.0007	.0008	.0005	.0006	.0005	.0005
17 .....	.0004	.0003	.0003	.0002	.0004	.0004	.0004	.0003	0	.0003	.0003	.0005	.0002	.0003	.0002	.0002
18 .....	.0015	.0013	.0015	.0009	.0016	.0017	.0017	.0014	0	.0015	.0016	.0022	.0011	.0013	.0010	.0011
19 .....	.0020	.0028	.0018	.0014	.0026	.0015	.0028	.0016	0	.0016	.0019	.0026	.0014	.0011	.0010	.0009
20 .....	.0019	.0017	.0018	.0012	.0022	.0017	.0020	.0018	0	.0017	.0018	.0021	.0012	.0019	.0014	.0014
21 .....	.0003	.0002	.0002	.0001	.0003	.0002	.0003	.0003	0	.0003	.0003	.0004	.0002	.0003	.0002	.0002
22 .....	.0005	.0004	.0004	.0002	.0006	.0004	.0004	.0004	0	.0004	.0004	.0005	.0003	.0004	.0003	.0003
23 .....	.0007	.0006	.0011	.0005	.0008	.0009	.0007	.0008	0	.0007	.0008	.0008	.0006	.0009	.0008	.0008
24 .....	.0011	.0010	.0010	.0007	.0013	.0010	.0012	.0011	0	.0024	.0013	.0024	.0005	.0021	.0007	.0007
25 .....	.0320	.0242	.0191	.0099	.0355	.0212	.0286	.0184	0	.0154	.0168	.0439	.0139	.0173	.0141	.0140
26 .....	.0112	.0113	.0102	.0080	.0140	.0107	.0098	.0104	0	.0066	.0067	.0081	.0047	.0092	.0060	.0067
27 .....	.0042	.0032	.0040	.0027	.0036	.0044	.0044	.0029	0	.0027	.0035	.0039	.0034	.0024	.0019	.0031
28 .....	.0415	.0459	.0387	.0221	.0515	.0361	.0319	.0266	0	.0327	.0269	.0345	.0266	.0307	.0292	.0407
29 .....	.0283	.0238	.0244	.0141	.0309	.0224	.0310	.0264	0	.0269	.0302	.0362	.0197	.0287	.0230	.0209
30 .....	.0122	.0102	.0113	.0069	.0176	.0095	.0132	.0112	0	.0099	.0131	.0123	.0078	.0143	.0145	.0097
31 .....	.0080	.0069	.0070	.0041	.0087	.0066	.0089	.0073	0	.0075	.0083	.0104	.0058	.0081	.0064	.0061
32 .....	.0024	.0022	.0021	.0012	.0026	.0019	.0027	.0020	0	.0021	.0022	.0029	.0016	.0023	.0020	.0018
33 .....	.0060	.0058	.0052	.0041	.0072	.0058	.0059	.0061	0	.0042	.0045	.0057	.0032	.0051	.0041	.0038
34 .....	.0073	.0097	.0065	.0038	.0097	.0045	.0111	.0079	0	.0078	.0107	.0074	.0049	.0056	.0039	.0040
35 .....	.0344	.0364	.0371	.0228	.0429	.0324	.0372	.0355	0	.0227	.0265	.0323	.0186	.0281	.0239	.0214
36 .....	.0114	.0114	.0098	.0059	.0134	.0087	.0134	.0105	0	.0104	.0121	.0133	.0073	.0122	.0098	.0087
37 .....	.0243	.0204	.0210	.0121	.0265	.0192	.0271	.0228	0	.0232	.0261	.0307	.0168	.0246	.0199	.0180
38 .....	.0126	.0108	.0109	.0062	.0136	.0101	.0139	.0114	0	.0116	.0136	.0200	.0089	.0129	.0100	.0102
39 .....	.0017	.0014	.0014	.0008	.0018	.0013	.0018	.0016	0	.0016	.0018	.0021	.0012	.0017	.0014	.0012
Total .....	.5559	.4665	.4809	.2772	.6069	.4398	.6100	.5224	0	.5320	.5985	.7030	.3858	.5642	.4565	.4123

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	19.0301	19.0302	19.0303	19.0304	19.0305	19.0306	20.0100	20.0500	20.0501	20.0502	20.0600	20.0701	20.0702	20.0800	20.0901	20.0902
1	0.0025	0.0026	0.0032	0.0026	0.0029	0.0024	0.0086	0.0048	0.0036	0.0037	0.0041	0.0039	0.0031	0.0033	0.0040	0.0031
2 .....	.0001	.0001	.0001	.0001	.0001	.0001	.0009	.0003	.0001	.0001	.0003	.0002	.0001	.0002	.0002	.0001
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0015	.0014	.0020	.0016	.0015	.0014	.0020	.0025	.0023	.0025	.0024	.0028	.0023	.0044	.0027	.0039
5	0	.0001	.0001	.0001	0	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0003	.0003	.0001	.0003
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0055	.0061	.0079	.0063	.0060	.0056	.0057	.0104	.0108	.0111	.0090	.0114	.0145	.0090	.0123	.0097
8 .....	.0040	.0044	.0054	.0045	.0047	.0038	.0030	.0045	.0055	.0060	.0044	.0057	.0052	.0040	.0057	.0048
9 .....	.0105	.0107	.0069	.0114	.0051	.0128	.0002	.0002	.0002	.0002	.0002	.0002	.0003	.0002	.0002	.0002
10 .....	.2546	.3076	.3212	.2660	.3676	.2407	.0020	.0030	.0036	.0040	.0029	.0038	.0035	.0027	.0038	.0032
11 .....	.0020	.0015	.0022	.0034	.0019	.0024	.0008	.0011	.0022	.0040	.0013	.0024	.0017	.0013	.0018	.0017
12 .....	.0047	.0055	.0071	.0069	.0052	.0051	.0026	.0039	.0074	.0087	.0043	.0070	.0084	.0057	.0069	.0048
13 .....	.0025	.0035	.0095	.0039	.0023	.0033	.0033	.0037	.0061	.0110	.0088	.0096	.0054	.0123	.0057	.0289
14 .....	.0054	.0020	.0064	.0214	.0010	.0038	.0033	.0020	.0024	.0041	.0023	.0017	.0023	.0014	.0018	.0049
15 .....	.0010	.0011	.0013	.0013	.0010	.0010	.1661	.3031	.3295	.3914	.2834	.3420	.2961	.2145	.3537	.2649
16 .....	.0006	.0006	.0008	.0008	.0006	.0007	.0007	.0008	.0029	.0012	.0008	.0011	.0052	.0008	.0011	.0011
17 .....	.0003	.0004	.0004	.0004	.0003	.0003	.0020	.0009	.0015	.0011	.0008	.0014	.0024	.0007	.0011	.0009
18 .....	.0012	.0013	.0018	.0016	.0012	.0012	.0084	.0046	.0242	.0154	.0038	.0173	.0232	.0035	.0085	.0059
19 .....	.0014	.0015	.0019	.0013	.0010	.0010	.0091	.0040	.0028	.0024	.0033	.0030	.0059	.0029	.0037	.0025
20 .....	.0016	.0017	.0035	.0019	.0017	.0015	.0019	.0020	.0025	.0025	.0019	.0026	.0031	.0018	.0024	.0021
21 .....	.0002	.0003	.0003	.0003	.0003	.0002	.0003	.0003	.0004	.0004	.0003	.0004	.0003	.0003	.0004	.0004
22 .....	.0007	.0004	.0004	.0004	.0004	.0004	.0004	.0005	.0006	.0006	.0005	.0007	.0006	.0005	.0006	.0005
23 .....	.0009	.0011	.0009	.0011	.0006	.0013	.0005	.0007	.0009	.0009	.0007	.0008	.0008	.0007	.0010	.0008
24 .....	.0008	.0026	.0023	.0011	.0008	.0015	.0006	.0008	.0010	.0011	.0008	.0010	.0010	.0008	.0010	.0008
25 .....	.0225	.0140	.0201	.0155	.0152	.0131	.0098	.0224	.0267	.0246	.0236	.0312	.0257	.0273	.0306	.0321
26 .....	.0063	.0072	.0104	.0073	.0074	.0067	.0042	.0066	.0103	.0115	.0070	.0103	.0107	.0074	.0096	.0078
27 .....	.0023	.0023	.0030	.0024	.0027	.0023	.0016	.0033	.0034	.0035	.0039	.0035	.0033	.0037	.0037	.0070
28 .....	.0371	.0340	.0415	.0405	.0215	.0376	.0207	.0291	.0572	.0462	.0354	.0618	.0497	.0427	.0539	.0443
29 .....	.0249	.0274	.0332	.0274	.0299	.0236	.0190	.0287	.0344	.0377	.0277	.0362	.0326	.0250	.0358	.0304
30 .....	.0097	.0101	.0326	.0109	.0104	.0107	.0085	.0127	.0144	.0149	.0127	.0162	.0150	.0132	.0166	.0139
31 .....	.0070	.0076	.0094	.0076	.0082	.0066	.0057	.0084	.0097	.0106	.0080	.0103	.0092	.0074	.0101	.0091
32 .....	.0022	.0023	.0029	.0022	.0024	.0019	.0014	.0021	.0028	.0031	.0020	.0029	.0026	.0019	.0029	.0023
33 .....	.0039	.0044	.0073	.0047	.0048	.0039	.0028	.0042	.0057	.0063	.0042	.0059	.0060	.0043	.0058	.0048
34 .....	.0051	.0046	.0184	.0047	.0054	.0043	.0029	.0043	.0052	.0056	.0041	.0058	.0050	.0039	.0057	.0050
35 .....	.0258	.0253	.0332	.0282	.0280	.0236	.0186	.0252	.0329	.0360	.0245	.0362	.0350	.0327	.0379	.0312
36 .....	.0105	.0114	.0137	.0108	.0111	.0096	.0068	.0110	.0135	.0147	.0106	.0143	.0131	.0103	.0154	.0120
37 .....	.0215	.0237	.0287	.0237	.0259	.0204	.0155	.0242	.0294	.0323	.0235	.0307	.0279	.0212	.0305	.0257
38 .....	.0105	.0116	.0144	.0174	.0125	.0112	.0141	.0150	.0155	.0168	.0133	.0171	.0147	.0122	.0186	.0153
39 .....	.0015	.0016	.0020	.0016	.0018	.0014	.0011	.0017	.0020	.0022	.0016	.0021	.0019	.0015	.0021	.0018
Total .....	.4928	.5438	.6564	.5434	.5933	.4677	.3550	.5531	.6737	.7386	.5384	.7034	.6379	.4859	.6978	.5884

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	20.0903	21.0000	22.0101	22.0102	22.0103	22.0200	22.0300	22.0400	23.0100	23.0200	23.0300	23.0400	23.0500	23.0600	23.0700	24.0100
1 .....	.0034	.0047	.0034	.0027	.0034	.0032	.0029	.0038	.0035	.0029	.0033	.0031	.0027	.0026	.0027	.0042
2 .....	.0001	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0030	.0031	.0025	.0025	.0031	.0020	.0022	.0020	.0026	.0021	.0025	.0024	.0023	.0022	.0019	.0060
5 .....	.0002	.0001	.0001	.0001	.0001	.0001	.0002	.0001	.0001	.0001	.0001	.0001	.0002	.0002	.0001	.0013
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0110	.0144	.0131	.0089	.0137	.0104	.0108	.0097	.0134	.0096	.0124	.0110	.0100	.0125	.0089	.0095
8 .....	.0055	.0069	.0058	.0047	.0060	.0051	.0052	.0056	.0061	.0053	.0059	.0056	.0049	.0047	.0048	.0049
9 .....	.0002	.0003	.0006	.0004	.0003	.0089	.0040	.0064	.0029	.0029	.0055	.0006	.0003	.0058	.0018	.0004
10 .....	.0036	.0046	.0038	.0032	.0040	.0037	.0064	.0067	.0040	.0035	.0045	.0037	.0032	.0032	.0033	.0026
11 .....	.0029	.0114	.0036	.0030	.0025	.0021	.0066	.0027	.0038	.0040	.0036	.0028	.0034	.0020	.0025	.1713
12 .....	.0080	.0083	.0090	.0041	.0077	.0058	.0099	.0096	.0084	.0077	.0076	.0071	.0067	.0072	.0067	.0040
13 .....	.0111	.0047	.0084	.0106	.0094	.0046	.0064	.0038	.0063	.0061	.0057	.0065	.0061	.0044	.0043	.0101
14 .....	.0041	.0020	.0030	.0106	.0092	.0112	.0089	.0158	.0046	.0051	.0077	.0078	.0022	.0086	.0035	.0021
15 .....	.3444	.4033	.3464	.2979	.3590	.2800	.2645	.2153	.3356	.2790	.3204	.3571	.2866	.2604	.3014	.0339
16 .....	.0015	.0013	.0026	.0025	.0015	.0011	.0029	.0011	.0014	.0010	.0016	.0018	.0011	.0011	.0011	.0008
17 .....	.0012	.0010	.0011	.0006	.0013	.0017	.0105	.0074	.0015	.0063	.0069	.0026	.0104	.0161	.0074	.0006
18 .....	.0116	.0043	.0133	.0061	.0144	.0068	.0138	.0193	.0130	.0143	.0158	.0132	.0138	.0101	.0156	.0033
19 .....	.0028	.0041	.0030	.0017	.0029	.0023	.0025	.0029	.0028	.0025	.0028	.0023	.0039	.0024	.0031	.0030
20 .....	.0024	.0029	.0025	.0020	.0027	.0020	.0027	.0023	.0030	.0026	.0028	.0027	.0026	.0024	.0041	.0020
21 .....	.0004	.0005	.0004	.0003	.0004	.0003	.0003	.0003	.0004	.0003	.0004	.0003	.0003	.0003	.0003	.0004
22 .....	.0005	.0007	.0005	.0004	.0005	.0005	.0005	.0006	.0005	.0005	.0006	.0005	.0004	.0004	.0004	.0006
23 .....	.0009	.0013	.0012	.0008	.0011	.0011	.0011	.0011	.0012	.0010	.0012	.0010	.0010	.0010	.0008	.0014
24 .....	.0011	.0012	.0012	.0008	.0012	.0016	.0011	.0011	.0012	.0010	.0012	.0010	.0009	.0010	.0009	.0007
25 .....	.0247	.0384	.0246	.0189	.0276	.0194	.0227	.0205	.0215	.0186	.0343	.0216	.0197	.0196	.0168	.0309
26 .....	.0104	.0116	.0107	.0076	.0104	.0079	.0111	.0100	.0116	.0105	.0110	.0099	.0095	.0092	.0089	.0062
27 .....	.0054	.0047	.0036	.0031	.0044	.0027	.0034	.0028	.0034	.0032	.0036	.0034	.0043	.0031	.0028	.0141
28 .....	.0453	.0752	.0512	.0431	.0520	.0393	.0484	.0435	.0476	.0441	.0473	.0409	.0396	.0442	.0477	.0365
29 .....	.0345	.0432	.0359	.0297	.0375	.0296	.0321	.0296	.0378	.0331	.0368	.0350	.0304	.0291	.0303	.0250
30 .....	.0148	.0242	.0150	.0118	.0141	.0219	.0169	.0167	.0208	.0252	.0194	.0155	.0151	.0117	.0118	.0123
31 .....	.0098	.0122	.0101	.0084	.0108	.0084	.0090	.0084	.0107	.0093	.0103	.0097	.0087	.0082	.0085	.0088
32 .....	.0028	.0034	.0029	.0037	.0031	.0024	.0028	.0028	.0034	.0028	.0030	.0030	.0026	.0024	.0027	.0019
33 .....	.0058	.0072	.0063	.0046	.0063	.0049	.0076	.0057	.0065	.0058	.0062	.0059	.0053	.0051	.0052	.0042
34 .....	.0051	.0079	.0054	.0052	.0067	.0045	.0053	.0048	.0075	.0053	.0059	.0055	.0048	.0048	.0048	.0044
35 .....	.0343	.0512	.0455	.0285	.0410	.0309	.0454	.0615	.0847	.0784	.0652	.0407	.0408	.0305	.0294	.0288
36 .....	.0142	.0187	.0157	.0118	.0160	.0133	.0136	.0127	.0164	.0131	.0156	.0143	.0125	.0124	.0120	.0094
37 .....	.0294	.0367	.0306	.0254	.0317	.0253	.0274	.0253	.0323	.0285	.0315	.0301	.0261	.0249	.0261	.0210
38 .....	.0157	.0229	.0163	.0137	.0184	.0134	.0176	.0159	.0173	.0144	.0175	.0175	.0137	.0135	.0132	.0125
39 .....	.0020	.0025	.0021	.0017	.0022	.0017	.0019	.0017	.0022	.0020	.0022	.0021	.0018	.0017	.0018	.0014
Total .....	.6744	.8414	.7016	.5815	.7269	.5802	.6286	.5797	.7401	.6522	.7225	.6885	.5978	.5692	.5978	.4808

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued
[Dollars]

	24.0200	24.0300	24.0400	24.0500	24.0602	24.0701	24.0702	24.0703	24.0704	24.0705	24.0706	25.0000	26.0100	26.0200	26.0301	26.0302
1	0.0025	0.0028	0.0025	0.0013	0.0028	0.0020	0.0020	0.0017	0.0028	0.0021	0.0021	0.0020	0.0031	0.0027	0.0023	0.0029
2 .....	.0001	.0001	.0001	0	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0044	.0063	.0019	.0015	.0071	.0026	.0022	.0016	.0051	.0019	.0022	.0026	.0026	.0019	.0016	.0019
5 .....	.0008	.0006	.0001	.0001	.0016	.0003	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0088	.0102	.0073	.0040	.0139	.0062	.0062	.0059	.0091	.0067	.0062	.0069	.0093	.0066	.0059	.0075
8 .....	.0036	.0038	.0044	.0022	.0045	.0036	.0035	.0030	.0048	.0038	.0037	.0036	.0057	.0050	.0041	.0054
9 .....	.0003	.0004	.0002	.0010	.0004	.0006	.0003	.0001	.0002	.0007	.0002	.0002	.0002	.0002	.0002	.0004
10 .....	.0024	.0025	.0030	.0015	.0029	.0024	.0024	.0020	.0032	.0026	.0025	.0024	.0037	.0030	.0027	.0036
11 .....	.1877	.1772	.3033	.1281	.2325	.1998	.2108	.1899	.2982	.2530	.2303	.2337	.0070	.0053	.0043	.0075
12 .....	.0040	.0040	.0045	.0041	.0045	.0045	.0050	.0037	.0051	.0045	.0055	.0032	.3567	.2481	.2459	.3795
13 .....	.0065	.0079	.0053	.0032	.0070	.0104	.0093	.0030	.0058	.0034	.0057	.0059	.0042	.0039	.0033	.0060
14 .....	.0055	.0018	.0024	.0034	.0019	.0107	.0083	.0030	.0124	.0026	.0022	.0015	.0015	.0017	.0012	.0046
15 .....	.0154	.0362	.0018	.0014	.0138	.0019	.0015	.0026	.0038	.0019	.0016	.0029	.0017	.0014	.0011	.0017
16 .....	.0007	.0008	.0007	.0005	.0010	.0007	.0006	.0005	.0008	.0006	.0006	.0006	.0008	.0007	.0006	.0008
17 .....	.0006	.0008	.0003	.0002	.0007	.0009	.0004	.0003	.0004	.0003	.0006	.0008	.0004	.0004	.0003	.0007
18 .....	.0027	.0038	.0015	.0010	.0024	.0016	.0014	.0011	.0019	.0013	.0014	.0040	.0017	.0015	.0012	.0018
19 .....	.0023	.0030	.0021	.0011	.0038	.0021	.0020	.0016	.0025	.0016	.0020	.0020	.0018	.0017	.0012	.0019
20 .....	.0016	.0018	.0017	.0010	.0019	.0016	.0017	.0012	.0020	.0015	.0015	.0015	.0028	.0024	.0019	.0023
21 .....	.0003	.0003	.0003	.0002	.0003	.0002	.0002	.0002	.0003	.0003	.0002	.0002	.0004	.0003	.0003	.0003
22 .....	.0004	.0005	.0004	.0002	.0005	.0004	.0004	.0003	.0005	.0004	.0004	.0004	.0006	.0005	.0004	.0005
23 .....	.0008	.0008	.0008	.0005	.0009	.0009	.0009	.0005	.0010	.0007	.0007	.0007	.0021	.0018	.0016	.0027
24 .....	.0006	.0007	.0008	.0005	.0008	.0007	.0007	.0005	.0010	.0007	.0007	.0006	.0011	.0010	.0009	.0010
25 .....	.0239	.0265	.0200	.0150	.0294	.0216	.0205	.0235	.0333	.0203	.0196	.0265	.0416	.0364	.0354	.0282
26 .....	.0058	.0072	.0077	.0046	.0068	.0068	.0063	.0053	.0081	.0069	.0068	.0058	.0186	.0095	.0090	.0084
27 .....	.0077	.0105	.0029	.0021	.0145	.0033	.0032	.0024	.0117	.0030	.0029	.0032	.0030	.0023	.0020	.0032
28 .....	.0336	.0350	.0384	.0263	.0354	.0398	.0334	.0205	.0366	.0362	.0383	.0194	.0283	.0260	.0349	.0297
29 .....	.0224	.0245	.0279	.0143	.0276	.0223	.0222	.0186	.0305	.0243	.0235	.0226	.0354	.0283	.0255	.0336
30 .....	.0100	.0112	.0101	.0063	.0110	.0092	.0090	.0072	.0110	.0091	.0092	.0085	.0160	.0142	.0135	.0137
31 .....	.0068	.0076	.0079	.0044	.0082	.0065	.0065	.0054	.0090	.0072	.0068	.0066	.0101	.0081	.0073	.0092
32 .....	.0017	.0018	.0026	.0011	.0021	.0018	.0018	.0015	.0023	.0022	.0021	.0018	.0028	.0028	.0023	.0026
33 .....	.0038	.0040	.0052	.0034	.0048	.0046	.0046	.0040	.0063	.0049	.0050	.0033	.0060	.0064	.0063	.0053
34 .....	.0037	.0042	.0044	.0023	.0046	.0034	.0054	.0029	.0052	.0039	.0037	.0034	.0055	.0050	.0039	.0052
35 .....	.0228	.0255	.0268	.0147	.0319	.0228	.0215	.0187	.0291	.0232	.0288	.0222	.0501	.0695	.0318	.0325
36 .....	.0086	.0091	.0110	.0054	.0120	.0090	.0088	.0074	.0120	.0093	.0096	.0088	.0159	.0185	.0114	.0141
37 .....	.0189	.0204	.0239	.0121	.0232	.0190	.0189	.0160	.0261	.0207	.0200	.0192	.0301	.0243	.0218	.0290
38 .....	.0108	.0124	.0122	.0070	.0135	.0101	.0104	.0083	.0144	.0112	.0108	.0105	.0170	.0135	.0118	.0147
39 .....	.0013	.0014	.0016	.0008	.0016	.0013	.0013	.0011	.0018	.0014	.0014	.0013	.0021	.0017	.0015	.0020
Total .....	.4336	.4676	.5480	.2766	.5318	.4354	.4340	.3656	.5985	.4746	.4588	.4388	.6901	.5567	.4993	.6645

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	26.0400	26.0501	26.0502	26.0601	26.0602	26.0700	26.0801	26.0802	26.0803	26.0804	27.0101	27.0102	27.0103	27.0104	27.0105	27.0201
1	0.0029	0.0028	0.0036	0.0022	0.0030	0.0021	0.0032	0.0040	0.0035	0.0043	0.0022	0.0017	0.0021	0.0022	0.0016	0.0018
2 .....	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0002	.0001	.0001	.0001	.0001	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0023	.0024	.0028	.0019	.0023	.0016	.0028	.0028	.0024	.0072	.0047	.0027	.0039	.0029	.0078	.0118
5 .....	.0001	.0001	.0002	.0001	.0001	.0001	.0001	.0002	.0001	.0001	.0016	.0001	.0104	.0053	.0011	.0121
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0071	.0073	.0093	.0065	.0079	.0054	.0081	.0111	.0091	.0107	.0120	.0088	.0078	.0093	.0083	.0095
8 .....	.0053	.0051	.0066	.0040	.0054	.0039	.0060	.0075	.0066	.0081	.0038	.0029	.0039	.0040	.0029	.0030
9 .....	.0003	.0002	.0003	.0002	.0011	.0002	.0002	.0024	.0003	.0003	.0002	.0001	.0002	.0002	.0001	.0001
10 .....	.0034	.0033	.0044	.0026	.0035	.0025	.0039	.0049	.0043	.0049	.0025	.0018	.0026	.0026	.0020	.0020
11 .....	.0053	.0082	.0027	.0126	.0100	.0059	.0038	.0040	.0021	.0029	.0018	.0008	.0025	.0015	.0015	.0011
12 .....	.3456	.3308	.4739	.2248	.3468	.2319	.4375	.5189	.4801	.4452	.0053	.0062	.0050	.0066	.0033	.0033
13 .....	.0047	.0080	.0060	.0044	.0040	.0032	.0051	.0119	.0040	.0082	.1871	.1237	.2396	.2396	.1500	.1171
14 .....	.0047	.0051	.0019	.0021	.0060	.0031	.0014	.0034	.0017	.0161	.0010	.0009	.0010	.0010	.0036	.0030
15 .....	.0014	.0016	.0016	.0017	.0017	.0011	.0014	.0018	.0014	.0018	.0009	.0007	.0010	.0009	.0008	.0008
16 .....	.0007	.0008	.0011	.0006	.0008	.0005	.0008	.0011	.0009	.0016	.0008	.0006	.0007	.0007	.0006	.0006
17 .....	.0005	.0006	.0030	.0004	.0012	.0003	.0005	.0008	.0030	.0020	.0007	.0014	.0015	.0009	.0008	.0005
18 .....	.0018	.0019	.0023	.0014	.0048	.0012	.0017	.0027	.0019	.0029	.0030	.0133	.0025	.0023	.0036	.0021
19 .....	.0019	.0020	.0051	.0023	.0023	.0015	.0027	.0030	.0042	.0044	.0094	.0030	.0070	.0053	.0035	.0023
20 .....	.0023	.0022	.0040	.0020	.0024	.0017	.0025	.0031	.0036	.0041	.0021	.0015	.0019	.0019	.0015	.0015
21 .....	.0003	.0003	.0004	.0003	.0003	.0002	.0004	.0004	.0004	.0007	.0002	.0002	.0002	.0002	.0002	.0002
22 .....	.0005	.0005	.0006	.0004	.0005	.0003	.0005	.0006	.0006	.0008	.0005	.0003	.0005	.0005	.0004	.0006
23 .....	.0026	.0027	.0079	.0015	.0026	.0019	.0032	.0037	.0062	.0089	.0007	.0005	.0006	.0008	.0010	.0010
24 .....	.0011	.0010	.0027	.0041	.0011	.0008	.0010	.0014	.0012	.0014	.0007	.0006	.0007	.0008	.0005	.0006
25 .....	.0244	.0235	.0249	.0195	.0201	.0164	.0195	.0262	.0195	.0304	.0166	.0108	.0156	.0209	.0167	.0380
26 .....	.0108	.0077	.0117	.0077	.0098	.0075	.0087	.0112	.0111	.0111	.0074	.0062	.0068	.0076	.0050	.0054
27 .....	.0026	.0030	.0039	.0029	.0029	.0021	.0037	.0040	.0032	.0065	.0145	.0134	.0072	.0074	.0073	.0130
28 .....	.0328	.0339	.0402	.0377	.0345	.0365	.0264	.0311	.0295	.0470	.0350	.0248	.0292	.0236	.0271	.0295
29 .....	.0323	.0311	.0417	.0250	.0330	.0235	.0370	.0451	.0407	.0492	.0236	.0175	.0245	.0249	.0179	.0190
30 .....	.0139	.0124	.0162	.0117	.0131	.0109	.0137	.0166	.0150	.0180	.0088	.0067	.0085	.0088	.0082	.0105
31 .....	.0093	.0088	.0118	.0073	.0109	.0067	.0105	.0125	.0113	.0150	.0068	.0053	.0069	.0072	.0051	.0061
32 .....	.0028	.0026	.0037	.0020	.0027	.0019	.0032	.0041	.0034	.0043	.0018	.0014	.0018	.0019	.0014	.0015
33 .....	.0070	.0060	.0080	.0055	.0070	.0056	.0066	.0087	.0076	.0111	.0041	.0036	.0041	.0045	.0030	.0032
34 .....	.0049	.0046	.0064	.0040	.0052	.0038	.0058	.0072	.0063	.0078	.0038	.0028	.0036	.0038	.0027	.0030
35 .....	.0367	.0318	.0393	.0439	.0375	.0302	.0358	.0526	.0425	.0660	.0518	.0431	.0355	.0440	.0292	.0287
36 .....	.0155	.0139	.0165	.0110	.0157	.0113	.0161	.0218	.0181	.0286	.0108	.0088	.0097	.0109	.0072	.0076
37 .....	.0276	.0266	.0359	.0213	.0282	.0201	.0317	.0389	.0350	.0396	.0200	.0149	.0210	.0213	.0153	.0160
38 .....	.0152	.0146	.0184	.0115	.0152	.0126	.0173	.0194	.0182	.0319	.0102	.0079	.0103	.0107	.0077	.0091
39 .....	.0019	.0018	.0025	.0015	.0019	.0014	.0022	.0027	.0024	.0027	.0014	.0010	.0014	.0015	.0010	.0011
Total .....	.6327	.6091	.8216	.4887	.6456	.4600	.7252	.8919	.8013	.9060	.4580	.3402	.4818	.4887	.3500	.3668

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	27.0202	27.0300	27.0401	27.0402	27.0403	27.0404	27.0405	27.0406	28.0100	28.0200	28.0300	28.0400	29.0100	29.0201	29.0202	29.0203
1	0.0023	0.0017	0.0033	0.0022	0.0035	0.0022	0.0016	0.0037	0.0018	0.0016	0.0024	0.0021	0.0041	0.0016	0.0019	0.0017
2 .....	.0001	.0001	.0002	.0001	.0001	.0001	0	.0002	.0001	0	.0001	.0001	.0001	.0001	.0001	.0001
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0040	.0037	.0042	.0054	.0047	.0052	.0219	.0048	.0068	.0077	.0027	.0059	.0026	.0022	.0022	.0033
5 .....	.0044	.0021	.0012	.0020	.0004	.0010	.0001	.0051	.0004	.0005	.0003	.0002	.0002	.0009	.0007	.0002
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0091	.0065	.0096	.0083	.0135	.0094	.0102	.0094	.0071	.0071	.0092	.0076	.0088	.0053	.0060	.0055
8 .....	.0047	.0031	.0041	.0040	.0062	.0047	.0030	.0065	.0032	.0031	.0043	.0038	.0059	.0038	.0035	.0039
9 .....	.0002	.0001	.0002	.0002	.0003	.0002	.0001	.0002	.0002	.0001	.0007	.0003	.0002	.0001	.0002	.0001
10 .....	.0038	.0020	.0026	.0024	.0041	.0026	.0020	.0030	.0021	.0020	.0029	.0025	.0037	.0019	.0022	.0020
11 .....	.0034	.0026	.0099	.0037	.0035	.0014	.0018	.0050	.0025	.0017	.0062	.0032	.0038	.0063	.0088	.0023
12 .....	.0052	.0146	.0049	.0050	.0071	.0049	.0037	.0067	.0045	.0038	.0034	.0045	.0100	.0083	.0089	.0051
13 .....	.1089	.1122	.1468	.1816	.3657	.2257	.1296	.2038	.1502	.1698	.2927	.2385	.2543	.1439	.1563	.1611
14 .....	.0049	.0018	.0065	.0043	.0078	.0021	.0009	.0034	.0098	.0010	.0010	.0037	.0038	.0059	.0117	.0095
15 .....	.0010	.0010	.0114	.0010	.0037	.0010	.0007	.0017	.0009	.0007	.0017	.0009	.0013	.0008	.0014	.0008
16 .....	.0009	.0034	.0008	.0008	.0012	.0008	.0006	.0040	.0008	.0005	.0007	.0006	.0046	.0014	.0025	.0007
17 .....	.0007	.0007	.0014	.0020	.0016	.0011	.0007	.0018	.0005	.0005	.0003	.0004	.0007	.0007	.0015	.0008
18 .....	.0021	.0041	.0058	.0071	.0030	.0051	.0016	.0050	.0018	.0018	.0015	.0015	.0037	.0034	.0128	.0055
19 .....	.0055	.0015	.0084	.0024	.0183	.0019	.0072	.0020	.0026	.0026	.0024	.0021	.0024	.0032	.0018	.0014
20 .....	.0022	.0015	.0023	.0017	.0030	.0017	.0016	.0019	.0016	.0013	.0017	.0016	.0031	.0014	.0018	.0014
21 .....	.0003	.0002	.0004	.0002	.0004	.0002	.0002	.0003	.0002	.0002	.0003	.0002	.0003	.0002	.0002	.0002
22 .....	.0006	.0004	.0006	.0006	.0007	.0005	.0006	.0006	.0005	.0005	.0004	.0004	.0005	.0004	.0004	.0004
23 .....	.0018	.0007	.0025	.0007	.0012	.0011	.0008	.0008	.0007	.0006	.0007	.0007	.0015	.0006	.0008	.0008
24 .....	.0008	.0007	.0008	.0007	.0011	.0007	.0005	.0008	.0006	.0005	.0007	.0007	.0011	.0008	.0007	.0006
25 .....	.0479	.0228	.0304	.0300	.0261	.0221	.0176	.0363	.0177	.0166	.0198	.0162	.0199	.0163	.0197	.0172
26 .....	.0079	.0070	.0076	.0074	.0110	.0070	.0055	.0081	.0062	.0053	.0068	.0066	.0112	.0065	.0079	.0063
27 .....	.0047	.0044	.0120	.0039	.0066	.0031	.0088	.0047	.0060	.0066	.0048	.0051	.0036	.0026	.0025	.0052
28 .....	.0486	.0344	.0381	.0374	.0441	.0366	.0290	.0498	.0344	.0274	.0264	.0316	.0455	.0374	.0357	.0350
29 .....	.0246	.0188	.0247	.0225	.0382	.0239	.0184	.0262	.0198	.0183	.0273	.0235	.0349	.0178	.0206	.0189
30 .....	.0138	.0235	.0188	.0099	.0147	.0101	.0099	.0140	.0091	.0081	.0098	.0094	.0188	.0079	.0090	.0086
31 .....	.0074	.0059	.0087	.0065	.0106	.0068	.0056	.0076	.0058	.0053	.0077	.0067	.0099	.0052	.0060	.0056
32 .....	.0022	.0016	.0020	.0019	.0028	.0019	.0015	.0021	.0016	.0014	.0020	.0017	.0030	.0015	.0017	.0015
33 .....	.0043	.0037	.0043	.0040	.0063	.0041	.0032	.0046	.0034	.0030	.0046	.0045	.0064	.0036	.0042	.0035
34 .....	.0039	.0030	.0054	.0035	.0059	.0037	.0029	.0040	.0040	.0028	.0042	.0036	.0063	.0027	.0042	.0031
35 .....	.0982	.0418	.0493	.0359	.0642	.0355	.0363	.0372	.0448	.0235	.0372	.0314	.1428	.0226	.0281	.0242
36 .....	.0107	.0080	.0111	.0095	.0168	.0101	.0079	.0108	.0077	.0070	.0107	.0092	.0146	.0074	.0089	.0074
37 .....	.0208	.0160	.0207	.0192	.0327	.0206	.0157	.0224	.0169	.0156	.0234	.0202	.0299	.0152	.0176	.0161
38 .....	.0128	.0091	.0114	.0101	.0164	.0104	.0080	.0122	.0101	.0084	.0122	.0101	.0196	.0082	.0099	.0084
39 .....	.0014	.0011	.0014	.0013	.0022	.0014	.0011	.0015	.0012	.0011	.0016	.0014	.0021	.0010	.0012	.0011
Total .....	.4762	.3658	.4737	.4392	.7497	.4710	.3607	.5122	.3878	.3582	.5348	.4626	.6855	.3492	.4035	.3694

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	29.0300	30.0000	31.0101	31.0102	31.0103	31.0200	31.0300	32.0100	32.0200	32.0301	32.0302	32.0400	32.0500	33.0001	34.0100	34.0201
1	0.0019	0.0028	0.0008	0.0018	0.0015	0.0021	0.0023	0.0019	0.0034	0.0026	0.0026	0.0023	0.0025	0.0033	0.0024	0.0026
2 .....	.0001	.0001	0	.0001	0	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0021	.0042	.0381	.0133	.0178	.0144	.0141	.0025	.0024	.0086	.0029	.0027	.0023	.0032	.0017	.0017
5 .....	.0003	.0015	.0001	.0001	0	.0172	.0035	.0003	.0001	.0002	.0003	.0002	.0001	.0003	.0001	.0001
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0054	.0073	.0086	.0074	.0075	.0084	.0106	.0057	.0097	.0085	.0084	.0079	.0074	.0066	.0062	.0066
8 .....	.0044	.0048	.0014	.0039	.0026	.0037	.0042	.0035	.0057	.0046	.0046	.0041	.0045	.0099	.0047	.0049
9 .....	.0002	.0001	.0001	.0001	.0001	.0002	.0020	.0002	.0036	.0002	.0005	.0003	.0016	.0002	.0041	.0025
10 .....	.0022	.0025	.0009	.0021	.0018	.0025	.0028	.0024	.0039	.0031	.0031	.0027	.0031	.0025	.0028	.0032
11 .....	.0071	.0020	.0004	.0056	.0012	.0025	.0098	.0010	.0046	.0022	.0024	.0043	.0025	.0021	.0026	.0038
12 .....	.0082	.0073	.0017	.0050	.0039	.0045	.0055	.0054	.0065	.0060	.0061	.0041	.0050	.0044	.0046	.0090
13 .....	.1673	.2034	.0279	.1715	.1184	.1951	.1972	.0066	.0058	.0119	.0076	.0116	.0061	.0113	.0047	.0043
14 .....	.0092	.0017	.0006	.0015	.0007	.0036	.0036	.2066	.3748	.2618	.2942	.2482	.3178	.2019	.2729	.3030
15 .....	.0010	.0009	.0004	.0009	.0007	.0035	.0025	.0009	.0018	.0012	.0011	.0021	.0010	.0009	.0030	.0017
16 .....	.0069	.0025	.0003	.0006	.0004	.0021	.0186	.0007	.0011	.0014	.0027	.0018	.0008	.0006	.0008	.0008
17 .....	.0009	.0023	.0002	.0012	.0003	.0004	.0006	.0011	.0005	.0004	.0022	.0008	.0012	.0003	.0004	.0005
18 .....	.0063	.0118	.0012	.0088	.0013	.0022	.0023	.0029	.0021	.0020	.0094	.0032	.0035	.0016	.0014	.0019
19 .....	.0014	.0016	.0010	.0013	.0014	.0016	.0018	.0017	.0037	.0026	.0029	.0038	.0020	.0013	.0021	.0022
20 .....	.0015	.0017	.0008	.0016	.0014	.0017	.0020	.0014	.0022	.0019	.0020	.0027	.0018	.0015	.0016	.0019
21 .....	.0002	.0002	.0001	.0006	.0002	.0002	.0003	.0002	.0003	.0005	.0003	.0003	.0003	.0002	.0003	.0003
22 .....	.0003	.0005	.0003	.0005	.0009	.0006	.0007	.0004	.0006	.0005	.0005	.0004	.0005	.0004	.0004	.0005
23 .....	.0007	.0008	.0002	.0009	.0008	.0007	.0010	.0006	.0013	.0007	.0008	.0009	.0008	.0006	.0007	.0008
24 .....	.0007	.0008	.0003	.0006	.0005	.0007	.0008	.0007	.0012	.0008	.0009	.0007	.0008	.0007	.0012	.0026
25 .....	.0154	.0243	.0088	.0178	.0310	.0257	.0340	.0248	.0233	.0316	.0249	.0179	.0188	.0195	.0274	.0226
26 .....	.0077	.0073	.0025	.0071	.0056	.0072	.0089	.0062	.0092	.0071	.0081	.0096	.0078	.0065	.0062	.0092
27 .....	.0024	.0031	.0031	.0033	.0071	.0047	.0064	.0035	.0038	.0063	.0042	.0036	.0038	.0038	.0028	.0025
28 .....	.0332	.0354	.0150	.0308	.0208	.0298	.0435	.0321	.0498	.0328	.0313	.0368	.0297	.0447	.0303	.0341
29 .....	.0203	.0230	.0085	.0199	.0168	.0236	.0265	.0223	.0356	.0321	.0292	.0253	.0284	.0229	.0258	.0293
30 .....	.0088	.0106	.0068	.0115	.0120	.0113	.0132	.0111	.0154	.0125	.0123	.0105	.0120	.0100	.0100	.0167
31 .....	.0059	.0066	.0027	.0058	.0052	.0066	.0076	.0065	.0099	.0104	.0084	.0072	.0079	.0066	.0072	.0082
32 .....	.0016	.0019	.0008	.0016	.0014	.0018	.0021	.0017	.0030	.0022	.0023	.0021	.0021	.0019	.0021	.0023
33 .....	.0042	.0045	.0015	.0036	.0031	.0041	.0046	.0040	.0057	.0047	.0048	.0039	.0044	.0082	.0045	.0058
34 .....	.0031	.0035	.0014	.0031	.0027	.0037	.0042	.0033	.0066	.0052	.0044	.0042	.0045	.0052	.0046	.0051
35 .....	.0317	.0292	.0148	.0232	.0233	.0279	.0320	.0329	.0415	.0379	.0322	.0270	.0274	.0254	.0237	.0359
36 .....	.0085	.0098	.0034	.0076	.0063	.0086	.0102	.0082	.0149	.0112	.0114	.0101	.0106	.0090	.0112	.0125
37 .....	.0174	.0197	.0073	.0171	.0142	.0199	.0225	.0190	.0307	.0247	.0248	.0218	.0245	.0197	.0223	.0253
38 .....	.0394	.0108	.0041	.0088	.0118	.0107	.0128	.0105	.0152	.0239	.0133	.0122	.0119	.0103	.0112	.0127
39 .....	.0012	.0014	.0005	.0012	.0010	.0014	.0015	.0013	.0021	.0017	.0017	.0015	.0017	.0013	.0015	.0017
Total .....	.3989	.4517	.1666	.3919	.3257	.4547	.5164	.4342	.7020	.5662	.5688	.4987	.5614	.4487	.5097	.5788

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	34.0202	34.0301	34.0302	34.0303	34.0304	34.0305	35.0100	35.0200	36.0100	36.0200	36.0300	36.0400	36.0500	36.0600	36.0701	36.0702
1	0.0033	0.0034	0.0031	0.0029	0.0032	0.0032	0.0030	0.0028	0.0021	0.0035	0.0032	0.0029	0.0041	0.0030	0.0037	0.0048
2 .....	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0022	.0041	.0019	.0017	.0019	.0026	.0045	.0057	.0037	.0085	.0053	.0057	.0111	.0047	.0037	.0050
5 .....	.0001	.0001	.0001	.0001	.0001	.0002	.0030	.0070	.0031	.0050	.0020	.0035	.0073	.0014	.0009	.0018
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0080	.0091	.0088	.0073	.0081	.0100	.0128	.0116	.0156	.0168	.0181	.0106	.0203	.0094	.0119	.0148
8 .....	.0058	.0063	.0054	.0052	.0057	.0060	.0054	.0050	.0037	.0060	.0058	.0051	.0071	.0055	.0067	.0086
9 .....	.0203	.0036	.0110	.0061	.0044	.0008	.0002	.0002	.0002	.0002	.0002	.0002	.0003	.0002	.0003	.0004
10 .....	.0042	.0042	.0037	.0035	.0038	.0038	.0036	.0034	.0025	.0040	.0038	.0034	.0047	.0037	.0045	.0060
11 .....	.0054	.0041	.0031	.0020	.0018	.0036	.0039	.0203	.0018	.0014	.0024	.0015	.0015	.0064	.0023	.0027
12 .....	.0103	.0080	.0073	.0064	.0070	.0070	.0083	.0090	.0044	.0050	.0055	.0045	.0065	.0061	.0065	.0076
13 .....	.0098	.0049	.0042	.0055	.0072	.0141	.0093	.0096	.0045	.0073	.0089	.0042	.0081	.0074	.0039	.0072
14 .....	.3183	.3016	.3095	.3269	.3533	.2972	.0040	.0023	.0012	.0014	.0016	.0012	.0018	.0013	.0014	.0019
15 .....	.0014	.0013	.0058	.0012	.0016	.0032	.0099	.0018	.0017	.0018	.0016	.0033	.0021	.0014	.0015	.0020
16 .....	.0011	.0008	.0010	.0008	.0010	.0012	.3135	.2956	.2085	.3652	.3543	.3032	.3455	.3668	.4844	.5484
17 .....	.0007	.0004	.0009	.0005	.0007	.0018	.0008	.0007	.0006	.0007	.0006	.0005	.0008	.0007	.0005	.0009
18 .....	.0023	.0018	.0155	.0047	.0060	.0297	.0031	.0024	.0044	.0034	.0022	.0020	.0031	.0042	.0019	.0050
19 .....	.0033	.0019	.0021	.0019	.0022	.0030	.0042	.0057	.0018	.0040	.0034	.0029	.0046	.0038	.0037	.0079
20 .....	.0025	.0025	.0024	.0020	.0023	.0026	.0032	.0021	.0019	.0025	.0024	.0023	.0031	.0056	.0025	.0038
21 .....	.0005	.0003	.0003	.0003	.0003	.0003	.0004	.0003	.0002	.0004	.0004	.0004	.0007	.0003	.0004	.0005
22 .....	.0006	.0018	.0004	.0004	.0005	.0005	.0006	.0006	.0005	.0008	.0006	.0007	.0011	.0006	.0006	.0008
23 .....	.0012	.0009	.0011	.0010	.0010	.0009	.0015	.0011	.0008	.0009	.0010	.0009	.0010	.0012	.0011	.0020
24 .....	.0015	.0013	.0029	.0043	.0014	.0061	.0011	.0010	.0008	.0010	.0009	.0009	.0012	.0010	.0011	.0014
25 .....	.0350	.0858	.0221	.0222	.0266	.0250	.0253	.0287	.0322	.0499	.0479	.0678	.1323	.0365	.0551	.0880
26 .....	.0113	.0120	.0107	.0083	.0095	.0104	.0191	.0092	.0068	.0092	.0093	.0083	.0109	.0088	.0108	.0140
27 .....	.0032	.0043	.0031	.0027	.0031	.0037	.0090	.0125	.0101	.0195	.0097	.0103	.0207	.0092	.0077	.0098
28 .....	.0440	.0392	.0467	.0368	.0319	.0594	.0442	.0307	.0240	.0254	.0328	.0204	.0328	.0279	.0302	.0516
29 .....	.0362	.0353	.0332	.0309	.0343	.0345	.0339	.0318	.0239	.0378	.0360	.0328	.0467	.0347	.0427	.0539
30 .....	.0363	.0156	.0219	.0121	.0163	.0145	.0152	.0131	.0155	.0156	.0151	.0133	.0192	.0139	.0151	.0190
31 .....	.0101	.0105	.0093	.0085	.0096	.0096	.0096	.0091	.0072	.0106	.0104	.0096	.0144	.0096	.0117	.0145
32 .....	.0029	.0031	.0027	.0027	.0028	.0030	.0027	.0024	.0018	.0027	.0030	.0024	.0034	.0025	.0030	.0038
33 .....	.0066	.0128	.0106	.0098	.0110	.0105	.0061	.0057	.0038	.0054	.0053	.0047	.0066	.0055	.0062	.0079
34 .....	.0069	.0072	.0056	.0055	.0058	.0058	.0054	.0049	.0039	.0064	.0061	.0053	.0086	.0057	.0073	.0119
35 .....	.0400	.0403	.0406	.0325	.0530	.0435	.0347	.0315	.0274	.0368	.0370	.0288	.0451	.0342	.0341	.0534
36 .....	.0156	.0172	.0142	.0140	.0156	.0157	.0133	.0122	.0090	.0158	.0154	.0129	.0185	.0132	.0157	.0219
37 .....	.0307	.0303	.0286	.0267	.0297	.0297	.0289	.0272	.0202	.0317	.0306	.0272	.0378	.0298	.0367	.0461
38 .....	.0199	.0160	.0143	.0131	.0148	.0152	.0162	.0140	.0109	.0174	.0165	.0174	.0295	.0149	.0178	.0233
39 .....	.0021	.0021	.0020	.0018	.0020	.0020	.0020	.0019	.0014	.0022	.0021	.0019	.0026	.0020	.0025	.0032
Total .....	.7036	.6943	.6559	.6124	.6795	.6807	.6619	.6234	.4622	.7264	.7014	.6230	.8652	.6834	.8402	1.0561

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	36.0800	36.0900	36.1000	36.1100	36.1200	36.1300	36.1400	36.1500	36.1600	36.1700	36.1800	36.1900	36.2000	36.2100	36.2200	37.0101
1	0.0034	0.0038	0.0030	0.0029	0.0028	0	0.0022	0.0029	0.0022	0.0028	0.0031	0.0024	0.0022	0.0025	0.0031	0.0026
2 .....	.0001	.0001	.0001	.0001	.0001	0	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0032	.0041	.0033	.0026	.0033	0	.0060	.0022	.0022	.0032	.0024	.0039	.0040	.0038	.0050	.0040
5 .....	.0016	.0035	.0201	.0078	.0302	0	.0121	.0102	.0016	.0054	.0007	.0112	.0021	.0059	.0233	.0041
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0107	.0120	.0132	.0109	.0118	0	.0109	.0092	.0073	.0106	.0094	.0096	.0083	.0090	.0127	.0209
8 .....	.0063	.0066	.0051	.0052	.0048	0	.0039	.0053	.0038	.0051	.0055	.0042	.0040	.0044	.0055	.0047
9 .....	.0003	.0003	.0002	.0002	.0002	0	.0002	.0002	.0010	.0002	.0002	.0002	.0002	.0002	.0002	.0002
10 .....	.0043	.0044	.0034	.0035	.0032	0	.0026	.0035	.0026	.0034	.0037	.0028	.0026	.0030	.0036	.0032
11 .....	.0030	.0028	.0013	.0014	.0013	0	.0051	.0022	.0034	.0048	.0041	.0033	.0038	.0014	.0025	.0012
12 .....	.0057	.0070	.0073	.0081	.0067	0	.0069	.0056	.0051	.0057	.0057	.0056	.0052	.0046	.0065	.0084
13 .....	.0036	.0078	.0050	.0052	.0062	0	.0068	.0057	.0095	.0154	.0062	.0048	.0082	.0035	.0101	.0047
14 .....	.0015	.0015	.0013	.0017	.0012	0	.0025	.0018	.0019	.0073	.0067	.0012	.0022	.0010	.0021	.0014
15 .....	.0015	.0019	.0019	.0021	.0017	0	.0014	.0026	.0010	.0026	.0043	.0014	.0014	.0024	.0017	.0017
16 .....	.4358	.3784	.3003	.3348	.2559	0	.1854	.3579	.2404	.2670	.3685	.1971	.2353	.2775	.2906	.0014
17 .....	.0014	.0013	.0007	.0036	.0006	0	.0008	.0007	.0015	.0013	.0013	.0009	.0013	.0008	.0010	.2739
18 .....	.0111	.0030	.0031	.0077	.0029	0	.0028	.0037	.0014	.0045	.0093	.0016	.0028	.0016	.0065	.0049
19 .....	.0043	.0057	.0021	.0032	.0026	0	.0029	.0053	.0020	.0034	.0031	.0029	.0024	.0026	.0037	.0049
20 .....	.0115	.0028	.0023	.0023	.0021	0	.0022	.0022	.0018	.0023	.0023	.0018	.0017	.0021	.0027	.0031
21 .....	.0004	.0006	.0003	.0003	.0003	0	.0003	.0003	.0002	.0003	.0003	.0003	.0003	.0003	.0004	.0003
22 .....	.0007	.0008	.0006	.0005	.0007	0	.0007	.0005	.0004	.0008	.0006	.0007	.0004	.0007	.0007	.0008
23 .....	.0051	.0022	.0009	.0008	.0007	0	.0006	.0009	.0007	.0009	.0008	.0007	.0008	.0008	.0008	.0009
24 .....	.0011	.0012	.0010	.0012	.0009	0	.0008	.0009	.0008	.0009	.0010	.0008	.0007	.0008	.0010	.0010
25 .....	.0412	.0843	.0466	.0271	.0553	0	.0422	.0203	.0228	.0458	.0244	.0795	.0225	.0475	.0526	.0276
26 .....	.0104	.0107	.0100	.0105	.0088	0	.0082	.0080	.0101	.0089	.0093	.0076	.0068	.0078	.0100	.0091
27 .....	.0067	.0182	.0052	.0036	.0044	0	.0138	.0038	.0034	.0050	.0037	.0077	.0097	.0073	.0093	.0086
28 .....	.0279	.0449	.0249	.0280	.0294	0	.0246	.0359	.0260	.0471	.0381	.0182	.0311	.0177	.0383	.0409
29 .....	.0399	.0417	.0326	.0330	.0307	0	.0244	.0330	.0241	.0314	.0344	.0265	.0247	.0279	.0344	.0298
30 .....	.0149	.0162	.0180	.0162	.0138	0	.0121	.0141	.0105	.0158	.0132	.0150	.0117	.0120	.0153	.0124
31 .....	.0108	.0135	.0093	.0093	.0088	0	.0072	.0092	.0068	.0090	.0095	.0078	.0072	.0082	.0101	.0085
32 .....	.0030	.0034	.0025	.0025	.0023	0	.0019	.0024	.0020	.0025	.0027	.0021	.0019	.0022	.0032	.0022
33 .....	.0060	.0066	.0056	.0057	.0054	0	.0048	.0053	.0041	.0053	.0054	.0044	.0042	.0043	.0059	.0053
34 .....	.0066	.0076	.0057	.0053	.0049	0	.0040	.0052	.0038	.0052	.0052	.0041	.0039	.0043	.0052	.0048
35 .....	.0315	.0392	.0363	.0385	.0335	0	.0287	.0332	.0267	.0351	.0320	.0325	.0277	.0268	.0385	.0348
36 .....	.0148	.0166	.0128	.0130	.0117	0	.0096	.0138	.0095	.0132	.0137	.0107	.0101	.0111	.0140	.0111
37 .....	.0343	.0354	.0275	.0281	.0258	0	.0206	.0285	.0207	.0269	.0296	.0223	.0212	.0237	.0292	.0255
38 .....	.0177	.0191	.0148	.0149	.0140	0	.0112	.0142	.0106	.0142	.0147	.0124	.0108	.0126	.0162	.0128
39 .....	.0023	.0024	.0019	.0019	.0018	0	.0014	.0020	.0014	.0018	.0020	.0015	.0015	.0016	.0020	.0017
Total .....	.7845	.8118	.6301	.6437	.5908	0	.4718	.6529	.4733	.6153	.6772	.5097	.4852	.5439	.6679	.5833

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	37.0102	37.0103	37.0104	37.0105	37.0200	37.0300	37.0401	37.0402	38.0100	38.0200	38.0300	38.0400	38.0500	38.0600	38.0700	38.0800
1	0.0021	0.0023	0.0020	0.0023	0.0032	0.0023	0.0028	0.0020	0	0	0	0.0022	0.0016	0.0016	0.0019	0.0019
2 .....	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	0	0	0	.0001	0	0	.0001	.0001
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0028	.0025	.0026	.0037	.0028	.0028	.0040	.0028	0	0	0	.0040	.0022	.0021	.0023	.0029
5 .....	.0110	.0004	.0004	.0004	.0042	.0002	.0003	.0060	0	0	0	.0042	.0399	.0002	.0005	.0002
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0189	.0120	.0096	.0134	.0187	.0089	.0101	.0084	0	0	0	.0102	.0064	.0062	.0072	.0075
8 .....	.0037	.0042	.0035	.0041	.0058	.0043	.0051	.0037	0	0	0	.0038	.0028	.0026	.0033	.0033
9 .....	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	0	0	0	.0002	.0001	.0001	.0001	.0001
10 .....	.0025	.0028	.0024	.0027	.0040	.0029	.0034	.0025	0	0	0	.0025	.0019	.0018	.0022	.0022
11 .....	.0008	.0015	.0011	.0010	.0013	.0013	.0012	.0017	0	0	0	.0009	.0006	.0007	.0012	.0011
12 .....	.0034	.0042	.0039	.0040	.0078	.0053	.0046	.0035	0	0	0	.0034	.0036	.0024	.0042	.0037
13 .....	.0029	.0059	.0048	.0076	.0038	.0028	.0103	.0050	0	0	0	.0074	.0021	.0022	.0036	.0037
14 .....	.0010	.0015	.0015	.0012	.0022	.0021	.0013	.0013	0	0	0	.0020	.0008	.0023	.0025	.0029
15 .....	.0021	.0042	.0018	.0013	.0022	.0011	.0012	.0107	0	0	0	.0009	.0008	.0007	.0020	.0016
16 .....	.0032	.0009	.0007	.0008	.0018	.0007	.0009	.0008	0	0	0	.0008	.0005	.0005	.0006	.0006
17 .....	.2091	.2264	.1634	.2171	.3793	.2864	.3600	.2245	0	0	0	.2121	.1212	.1151	.1730	.1755
18 .....	.0021	.0059	.0120	.0069	.0046	.0052	.0021	.0049	0	0	0	.0018	.0016	.0012	.0044	.0061
19 .....	.0040	.0180	.0094	.0048	.0066	.0051	.0031	.0036	0	0	0	.0031	.0019	.0022	.0034	.0066
20 .....	.0030	.0029	.0040	.0035	.0037	.0021	.0020	.0023	0	0	0	.0023	.0013	.0020	.0028	.0023
21 .....	.0002	.0003	.0002	.0003	.0004	.0003	.0003	.0002	0	0	0	.0003	.0002	.0002	.0002	.0003
22 .....	.0009	.0005	.0004	.0005	.0007	.0004	.0005	.0005	0	0	0	.0007	.0003	.0004	.0004	.0004
23 .....	.0024	.0008	.0007	.0007	.0010	.0007	.0009	.0007	0	0	0	.0006	.0005	.0004	.0006	.0005
24 .....	.0007	.0008	.0006	.0007	.0011	.0008	.0009	.0007	0	0	0	.0006	.0005	.0005	.0006	.0006
25 .....	.0262	.0211	.0209	.0221	.0219	.0163	.0182	.0177	0	0	0	.0353	.0324	.0402	.0339	.0279
26 .....	.0059	.0074	.0064	.0140	.0134	.0075	.0082	.0074	0	0	0	.0057	.0049	.0046	.0064	.0058
27 .....	.0105	.0044	.0048	.0045	.0066	.0060	.0067	.0049	0	0	0	.0110	.0052	.0039	.0039	.0051
28 .....	.0224	.0544	.0624	.0563	.0358	.0390	.0315	.0291	0	0	0	.0263	.0260	.0476	.0448	.0428
29 .....	.0234	.0265	.0222	.0257	.0370	.0272	.0321	.0232	0	0	0	.0243	.0181	.0170	.0213	.0215
30 .....	.0107	.0111	.0105	.0113	.0137	.0101	.0123	.0097	0	0	0	.0168	.0076	.0073	.0090	.0090
31 .....	.0071	.0076	.0064	.0073	.0103	.0073	.0086	.0065	0	0	0	.0072	.0054	.0050	.0062	.0064
32 .....	.0017	.0021	.0018	.0020	.0027	.0020	.0025	.0017	0	0	0	.0019	.0014	.0014	.0016	.0016
33 .....	.0036	.0042	.0037	.0042	.0060	.0043	.0048	.0036	0	0	0	.0039	.0030	.0026	.0037	.0037
34 .....	.0038	.0042	.0035	.0042	.0062	.0043	.0049	.0037	0	0	0	.0037	.0030	.0027	.0034	.0035
35 .....	.0259	.0302	.0264	.0308	.0541	.0270	.0324	.0238	0	0	0	.0273	.0209	.0186	.0235	.0224
36 .....	.0092	.0101	.0086	.0099	.0138	.0102	.0119	.0091	0	0	0	.0092	.0068	.0066	.0084	.0081
37 .....	.0201	.0226	.0189	.0220	.0317	.0233	.0276	.0200	0	0	0	.0205	.0153	.0142	.0180	.0180
38 .....	.0104	.0116	.0099	.0112	.0156	.0115	.0135	.0100	0	0	0	.0115	.0089	.0078	.0107	.0106
39 .....	.0014	.0015	.0013	.0015	.0022	.0016	.0019	.0014	0	0	0	.0014	.0010	.0010	.0012	.0012
Total .....	.4593	.5172	.4334	.5042	.7264	.5337	.6323	.4576	0	0	0	.4700	.3507	.3260	.4131	.4120

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	38.0900	38.1000	38.1100	38.1200	38.1300	38.1400	39.0100	39.0200	40.0100	40.0200	40.0300	40.0400	40.0500	40.0600	40.0700	40.0800
1	0.0018	0.0021	0.0029	0.0028	0.0030	0.0021	0.0018	0.0023	0.0024	0.0024	0.0024	0.0028	0.0025	0.0029	0.0025	0.0029
2 .....	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0020	.0022	.0029	.0025	.0032	.0024	.0019	.0024	.0024	.0019	.0018	.0023	.0022	.0025	.0021	.0024
5 .....	.0025	.0003	.0008	.0011	.0011	.0002	.0002	.0002	.0004	.0002	.0002	.0002	.0002	.0007	.0002	.0002
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0068	.0079	.0121	.0113	.0113	.0072	.0064	.0083	.0099	.0095	.0086	.0143	.0147	.0161	.0140	.0172
8 .....	.0032	.0038	.0052	.0052	.0054	.0039	.0033	.0042	.0045	.0044	.0044	.0051	.0046	.0054	.0045	.0054
9 .....	.0001	.0003	.0002	.0002	.0002	.0002	.0001	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002
10 .....	.0021	.0025	.0035	.0034	.0036	.0026	.0022	.0028	.0030	.0029	.0029	.0034	.0030	.0036	.0030	.0036
11 .....	.0010	.0014	.0014	.0020	.0022	.0015	.0016	.0016	.0045	.0023	.0021	.0014	.0019	.0014	.0025	.0048
12 .....	.0043	.0054	.0055	.0072	.0071	.0060	.0126	.0054	.0046	.0054	.0049	.0047	.0064	.0051	.0044	.0051
13 .....	.0039	.0066	.0031	.0037	.0047	.0035	.0063	.0085	.0050	.0045	.0031	.0048	.0035	.0042	.0047	.0049
14 .....	.0029	.0044	.0015	.0014	.0017	.0064	.0013	.0014	.0019	.0073	.0012	.0031	.0024	.0028	.0026	.0085
15 .....	.0012	.0016	.0015	.0012	.0013	.0010	.0013	.0011	.0012	.0012	.0015	.0014	.0017	.0016	.0024	.0024
16 .....	.0006	.0030	.0011	.0012	.0102	.0006	.0006	.0008	.0010	.0016	.0012	.0010	.0067	.0014	.0010	.0012
17 .....	.1777	.2100	.3626	.3505	.3450	.2300	.0295	.0201	.0093	.0307	.0134	.0165	.0227	.0162	.0189	.0212
18 .....	.0047	.0056	.0021	.0021	.0060	.0111	.1506	.2371	.2876	.2536	.2670	.3148	.2645	.3262	.2702	.3140
19 .....	.0072	.0044	.0123	.0129	.0154	.0026	.0027	.0041	.0052	.0064	.0127	.0039	.0038	.0080	.0038	.0143
20 .....	.0024	.0036	.0028	.0022	.0026	.0021	.0018	.0023	.0025	.0029	.0062	.0036	.0028	.0038	.0032	.0031
21 .....	.0002	.0003	.0003	.0003	.0004	.0003	.0002	.0003	.0003	.0003	.0003	.0003	.0003	.0004	.0003	.0003
22 .....	.0004	.0004	.0005	.0005	.0006	.0004	.0003	.0004	.0004	.0004	.0005	.0005	.0004	.0007	.0005	.0006
23 .....	.0006	.0007	.0008	.0009	.0010	.0012	.0006	.0007	.0008	.0008	.0061	.0008	.0009	.0011	.0008	.0010
24 .....	.0007	.0007	.0009	.0010	.0010	.0007	.0007	.0008	.0008	.0008	.0013	.0009	.0009	.0010	.0008	.0010
25 .....	.0161	.0213	.0185	.0208	.0221	.0264	.0184	.0201	.0179	.0157	.0164	.0205	.0197	.0207	.0191	.0222
26 .....	.0079	.0074	.0172	.0096	.0095	.0074	.0066	.0098	.0077	.0087	.0077	.0162	.0095	.0092	.0089	.0089
27 .....	.0034	.0032	.0058	.0046	.0051	.0049	.0034	.0040	.0053	.0032	.0029	.0033	.0033	.0035	.0032	.0035
28 .....	.0380	.0477	.0242	.0276	.0326	.0319	.0404	.0472	.0361	.0362	.0385	.0475	.0385	.0549	.0434	.0450
29 .....	.0201	.0238	.0330	.0323	.0342	.0242	.0204	.0263	.0279	.0275	.0276	.0323	.0288	.0340	.0286	.0337
30 .....	.0091	.0113	.0137	.0120	.0169	.0098	.0093	.0106	.0124	.0124	.0122	.0134	.0117	.0135	.0118	.0137
31 .....	.0059	.0068	.0091	.0104	.0097	.0070	.0060	.0076	.0079	.0079	.0078	.0091	.0082	.0095	.0081	.0094
32 .....	.0015	.0019	.0025	.0025	.0029	.0019	.0017	.0021	.0022	.0021	.0023	.0026	.0024	.0026	.0023	.0027
33 .....	.0036	.0041	.0051	.0059	.0068	.0042	.0041	.0046	.0042	.0044	.0043	.0067	.0066	.0079	.0063	.0069
34 .....	.0032	.0039	.0075	.0053	.0054	.0040	.0032	.0042	.0046	.0044	.0044	.0049	.0043	.0051	.0043	.0053
35 .....	.0223	.0265	.0306	.0334	.0348	.0248	.0232	.0264	.0274	.0298	.0288	.0298	.0296	.0353	.0272	.0319
36 .....	.0078	.0096	.0124	.0131	.0135	.0099	.0080	.0105	.0114	.0117	.0112	.0125	.0118	.0137	.0116	.0139
37 .....	.0172	.0204	.0283	.0277	.0292	.0208	.0174	.0225	.0240	.0236	.0237	.0275	.0245	.0289	.0243	.0287
38 .....	.0091	.0108	.0145	.0147	.0162	.0109	.0096	.0120	.0120	.0122	.0120	.0146	.0130	.0152	.0128	.0151
39 .....	.0012	.0014	.0019	.0019	.0020	.0014	.0012	.0015	.0016	.0016	.0016	.0019	.0017	.0020	.0017	.0020
Total .....	.3928	.4673	.6486	.6355	.6680	.4753	.3989	.5144	.5507	.5414	.5433	.6289	.5600	.6611	.5562	.6570

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	40.0901	40.0902	41.0100	41.0201	41.0202	41.0203	42.0100	42.0201	42.0202	42.0300	42.0401	42.0402	42.0500	42.0700	42.0800	42.1000
1	0.0027	0.0020	0.0029	0.0031	0.0024	0.0028	0.0024	0.0027	0.0029	0.0031	0.0036	0.0029	0.0028	0.0027	0.0026	0.0019
2 .....	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0023	.0017	.0020	.0022	.0024	.0021	.0019	.0020	.0020	.0022	.0035	.0035	.0024	.0027	.0021	.0019
5 .....	.0002	.0002	.0002	.0002	.0002	.0002	.0001	.0001	.0002	.0002	.0005	.0005	.0002	.0002	.0002	.0001
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0128	.0080	.0084	.0097	.0079	.0211	.0085	.0086	.0095	.0300	.0182	.0096	.0104	.0096	.0084	.0066
8 .....	.0047	.0036	.0053	.0056	.0044	.0051	.0045	.0049	.0053	.0056	.0065	.0053	.0051	.0050	.0047	.0034
9 .....	.0002	.0001	.0002	.0003	.0002	.0002	.0002	.0002	.0002	.0002	.0003	.0002	.0003	.0002	.0002	.0002
10 .....	.0031	.0024	.0035	.0054	.0030	.0034	.0030	.0033	.0035	.0037	.0042	.0034	.0034	.0034	.0032	.0023
11 .....	.0013	.0012	.0016	.0019	.0034	.0025	.0056	.0036	.0029	.0030	.0020	.0016	.0032	.0014	.0013	.0127
12 .....	.0051	.0036	.0067	.0054	.0052	.0046	.0098	.0086	.0062	.0061	.0064	.0083	.0054	.0059	.0063	.0051
13 .....	.0063	.0033	.0032	.0042	.0137	.0055	.0037	.0033	.0035	.0051	.0150	.0240	.0039	.0033	.0032	.0027
14 .....	.0018	.0011	.0014	.0023	.0041	.0024	.0029	.0023	.0081	.0027	.0027	.0041	.0140	.0028	.0022	.0053
15 .....	.0034	.0012	.0013	.0016	.0041	.0021	.0035	.0039	.0022	.0034	.0016	.0012	.0045	.0012	.0013	.0012
16 .....	.0016	.0009	.0009	.0011	.0009	.0020	.0011	.0012	.0012	.0038	.0025	.0012	.0010	.0009	.0009	.0012
17 .....	.0195	.0248	.0128	.0195	.0162	.0182	.0068	.0135	.0103	.0118	.0029	.0056	.0137	.0181	.0200	.0269
18 .....	.2684	.2019	.3599	.2956	.2484	.3230	.2965	.3078	.3440	.3243	.3816	.3004	.3047	.3031	.2980	.1609
19 .....	.0046	.0023	.0083	.0454	.0049	.0055	.0048	.0050	.0046	.0054	.0061	.0039	.0056	.0048	.0049	.0025
20 .....	.0032	.0025	.0024	.0033	.0025	.0036	.0021	.0025	.0024	.0054	.0039	.0022	.0027	.0023	.0030	.0019
21 .....	.0003	.0002	.0003	.0004	.0003	.0004	.0003	.0003	.0003	.0003	.0004	.0003	.0003	.0005	.0003	.0002
22 .....	.0005	.0004	.0005	.0007	.0004	.0005	.0004	.0004	.0004	.0005	.0006	.0006	.0005	.0005	.0005	.0004
23 .....	.0008	.0006	.0008	.0008	.0007	.0008	.0008	.0008	.0007	.0009	.0012	.0009	.0009	.0009	.0009	.0005
24 .....	.0008	.0006	.0010	.0010	.0009	.0009	.0015	.0010	.0010	.0011	.0011	.0010	.0009	.0009	.0009	.0007
25 .....	.0219	.0181	.0180	.0212	.0250	.0179	.0152	.0168	.0169	.0198	.0245	.0240	.0210	.0207	.0172	.0305
26 .....	.0087	.0066	.0098	.0085	.0077	.0164	.0105	.0150	.0108	.0283	.0351	.0094	.0087	.0088	.0089	.0064
27 .....	.0034	.0028	.0042	.0038	.0041	.0036	.0034	.0034	.0040	.0038	.0057	.0050	.0037	.0051	.0031	.0035
28 .....	.0488	.0457	.0348	.0489	.0427	.0379	.0265	.0445	.0505	.0426	.0505	.0486	.0524	.0553	.0360	.0343
29 .....	.0295	.0230	.0332	.0355	.0276	.0326	.0281	.0307	.0329	.0350	.0398	.0319	.0322	.0311	.0298	.0217
30 .....	.0133	.0105	.0160	.0160	.0122	.0119	.0112	.0121	.0127	.0145	.0160	.0135	.0152	.0152	.0150	.0122
31 .....	.0084	.0066	.0093	.0098	.0078	.0089	.0078	.0086	.0091	.0097	.0111	.0090	.0091	.0089	.0084	.0063
32 .....	.0024	.0019	.0027	.0027	.0022	.0027	.0022	.0024	.0027	.0027	.0034	.0027	.0026	.0023	.0023	.0017
33 .....	.0069	.0051	.0054	.0055	.0045	.0049	.0053	.0057	.0052	.0057	.0063	.0057	.0052	.0053	.0051	.0038
34 .....	.0045	.0036	.0053	.0053	.0044	.0055	.0044	.0048	.0053	.0061	.0067	.0050	.0049	.0049	.0045	.0034
35 .....	.0298	.0235	.0351	.0721	.0270	.0314	.0304	.0327	.0319	.0400	.0433	.0335	.0329	.0297	.0379	.0220
36 .....	.0118	.0086	.0127	.0133	.0104	.0122	.0114	.0124	.0130	.0137	.0161	.0126	.0132	.0124	.0114	.0086
37 .....	.0252	.0196	.0287	.0306	.0236	.0278	.0243	.0265	.0284	.0300	.0339	.0273	.0276	.0268	.0256	.0185
38 .....	.0172	.0103	.0163	.0157	.0136	.0153	.0141	.0137	.0137	.0148	.0178	.0143	.0145	.0140	.0132	.0098
39 .....	.0017	.0013	.0020	.0021	.0016	.0019	.0017	.0018	.0019	.0021	.0023	.0019	.0019	.0018	.0018	.0013
Total .....	.5772	.4499	.6570	.7009	.5408	.6377	.5573	.6072	.6505	.6880	.7774	.6251	.6311	.6128	.5854	.4229

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	42.1100	43.0100	43.0200	44.0001	44.0002	45.0100	45.0200	45.0300	46.0100	46.0200	46.0300	46.0400	47.0100	47.0200	47.0300	47.0401
1	0.0028	0.0024	0.0025	0.0024	0.0019	0.0024	0.0027	0.0023	0.0026	0.0028	0.0030	0.0032	0.0031	0.0030	0.0035	0.0029
2 .....	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0024	.0017	.0017	.0017	.0014	.0017	.0019	.0016	.0023	.0018	.0020	.0022	.0022	.0023	.0025	.0023
5 .....	.0004	.0001	.0002	.0001	.0001	.0002	.0002	.0002	.0001	.0001	.0002	.0002	.0001	.0001	.0002	.0002
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0111	.0085	.0086	.0096	.0077	.0102	.0126	.0099	.0110	.0114	.0131	.0146	.0100	.0092	.0103	.0089
8 .....	.0051	.0044	.0045	.0042	.0034	.0045	.0050	.0041	.0048	.0051	.0056	.0059	.0057	.0056	.0065	.0052
9 .....	.0002	.0002	.0002	.0002	.0001	.0002	.0002	.0002	.0002	.0002	.0002	.0003	.0002	.0002	.0003	.0002
10 .....	.0034	.0030	.0031	.0028	.0023	.0030	.0033	.0028	.0032	.0034	.0037	.0039	.0038	.0037	.0043	.0034
11 .....	.0018	.0011	.0014	.0012	.0024	.0011	.0012	.0010	.0013	.0013	.0014	.0016	.0013	.0013	.0021	.0024
12 .....	.0065	.0053	.0048	.0070	.0064	.0051	.0071	.0079	.0076	.0068	.0067	.0055	.0057	.0051	.0073	.0077
13 .....	.0042	.0025	.0027	.0031	.0026	.0029	.0033	.0027	.0036	.0031	.0038	.0040	.0035	.0037	.0043	.0035
14 .....	.0021	.0022	.0021	.0030	.0051	.0022	.0021	.0042	.0021	.0027	.0059	.0027	.0019	.0016	.0025	.0051
15 .....	.0039	.0011	.0011	.0015	.0011	.0013	.0023	.0012	.0013	.0016	.0015	.0041	.0015	.0017	.0016	.0018
16 .....	.0018	.0009	.0015	.0010	.0010	.0013	.0020	.0012	.0012	.0012	.0019	.0018	.0014	.0013	.0021	.0014
17 .....	.0175	.0181	.0291	.0094	.0103	.0138	.0131	.0129	.0087	.0084	.0146	.0115	.0078	.0120	.0079	.0168
18 .....	.0319	.0119	.0106	.0075	.0110	.0132	.0136	.0068	.0165	.0217	.0204	.0145	.0082	.0067	.0052	.0150
19 .....	.0058	.2852	.2663	.2438	.1708	.2802	.3135	.2598	.2883	.3284	.3442	.3482	.3893	.3918	.4762	.2918
20 .....	.0026	.0061	.0094	.0028	.0034	.0032	.0054	.0035	.0169	.0078	.0085	.0141	.0139	.0075	.0034	.0153
21 .....	.0004	.0004	.0007	.0007	.0004	.0005	.0004	.0003	.0004	.0003	.0005	.0005	.0004	.0004	.0004	.0004
22 .....	.0007	.0017	.0017	.0010	.0020	.0009	.0007	.0005	.0007	.0007	.0009	.0011	.0006	.0006	.0006	.0006
23 .....	.0009	.0009	.0007	.0007	.0006	.0007	.0009	.0007	.0010	.0008	.0010	.0012	.0010	.0009	.0010	.0010
24 .....	.0010	.0008	.0008	.0008	.0007	.0008	.0012	.0009	.0009	.0009	.0010	.0014	.0010	.0009	.0011	.0010
25 .....	.0225	.0144	.0164	.0183	.0144	.0166	.0184	.0133	.0166	.0161	.0183	.0200	.0186	.0177	.0185	.0180
26 .....	.0094	.0086	.0083	.0084	.0075	.0082	.0101	.0090	.0097	.0101	.0109	.0114	.0102	.0096	.0106	.0111
27 .....	.0036	.0027	.0032	.0028	.0023	.0030	.0030	.0027	.0027	.0030	.0034	.0034	.0031	.0033	.0035	.0031
28 .....	.0506	.0297	.0441	.0526	.0471	.0421	.0386	.0342	.0340	.0382	.0468	.0676	.0426	.0349	.0311	.0484
29 .....	.0317	.0279	.0287	.0265	.0211	.0283	.0314	.0261	.0309	.0320	.0350	.0369	.0361	.0352	.0406	.0325
30 .....	.0151	.0104	.0121	.0105	.0089	.0113	.0128	.0104	.0123	.0127	.0136	.0150	.0140	.0137	.0151	.0148
31 .....	.0090	.0077	.0080	.0074	.0060	.0079	.0087	.0073	.0087	.0089	.0096	.0102	.0100	.0098	.0112	.0093
32 .....	.0026	.0021	.0021	.0021	.0017	.0021	.0024	.0020	.0024	.0025	.0027	.0029	.0027	.0026	.0031	.0025
33 .....	.0054	.0044	.0045	.0049	.0041	.0048	.0055	.0048	.0054	.0055	.0059	.0060	.0059	.0057	.0066	.0061
34 .....	.0048	.0047	.0048	.0041	.0034	.0045	.0049	.0042	.0052	.0050	.0056	.0059	.0056	.0055	.0061	.0052
35 .....	.0331	.0306	.0285	.0319	.0262	.0297	.0336	.0299	.0389	.0322	.0369	.0402	.0368	.0332	.0400	.0379
36 .....	.0132	.0105	.0108	.0107	.0087	.0109	.0127	.0103	.0118	.0123	.0137	.0149	.0143	.0137	.0161	.0133
37 .....	.0271	.0240	.0246	.0227	.0181	.0243	.0269	.0224	.0260	.0276	.0301	.0317	.0311	.0302	.0350	.0277
38 .....	.0144	.0122	.0127	.0115	.0090	.0119	.0135	.0110	.0150	.0134	.0148	.0157	.0157	.0156	.0175	.0163
39 .....	.0019	.0016	.0017	.0016	.0012	.0017	.0018	.0015	.0018	.0019	.0021	.0022	.0021	.0021	.0024	.0019
Total .....	.6206	.5497	.5641	.5205	.4144	.5568	.6172	.5139	.5960	.6322	.6895	.7266	.7117	.6926	.8008	.6350

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	47.0402	47.0403	48.0100	48.0200	48.0300	48.0400	48.0500	48.0600	49.0100	49.0200	49.0300	49.0400	49.0500	49.0600	49.0700	50.0001
1	0.0026	0.0029	0.0033	0.0034	0.0030	0.0029	0.0035	0.0031	0.0027	0.0030	0.0032	0.0042	0.0031	0.0032	0.0030	0.0031
2 .....	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0018	.0024	.0023	.0025	.0022	.0019	.0024	.0025	.0019	.0024	.0023	.0029	.0022	.0021	.0021	.0022
5 .....	.0001	.0001	.0002	.0002	.0002	.0001	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0001	.0001	.0001
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0084	.0089	.0118	.0128	.0106	.0097	.0126	.0108	.0090	.0107	.0122	.0133	.0109	.0115	.0100	.0153
8 .....	.0049	.0054	.0060	.0063	.0055	.0054	.0063	.0057	.0049	.0055	.0059	.0077	.0057	.0059	.0055	.0057
9 .....	.0002	.0002	.0003	.0003	.0002	.0002	.0003	.0002	.0002	.0002	.0020	.0003	.0002	.0003	.0012	.0002
10 .....	.0033	.0036	.0040	.0042	.0036	.0036	.0042	.0038	.0033	.0036	.0039	.0051	.0038	.0039	.0037	.0038
11 .....	.0012	.0019	.0018	.0016	.0037	.0012	.0017	.0015	.0020	.0019	.0022	.0017	.0017	.0021	.0022	.0023
12 .....	.0070	.0067	.0076	.0081	.0076	.0065	.0083	.0069	.0072	.0053	.0064	.0066	.0056	.0061	.0058	.0067
13 .....	.0028	.0034	.0036	.0037	.0033	.0029	.0037	.0045	.0028	.0031	.0044	.0052	.0033	.0034	.0035	.0036
14 .....	.0015	.0035	.0036	.0045	.0046	.0028	.0058	.0029	.0035	.0013	.0026	.0034	.0024	.0036	.0054	.0029
15 .....	.0011	.0013	.0022	.0029	.0028	.0018	.0020	.0018	.0017	.0014	.0024	.0082	.0015	.0020	.0016	.0014
16 .....	.0013	.0012	.0015	.0016	.0015	.0013	.0016	.0020	.0014	.0017	.0016	.0015	.0019	.0014	.0015	.0016
17 .....	.0117	.0081	.0157	.0145	.0203	.0113	.0162	.0106	.0164	.0151	.0231	.0104	.0200	.0102	.0139	.0144
18 .....	.0074	.0139	.0113	.0074	.0102	.0040	.0096	.0117	.0095	.0044	.0193	.0031	.0067	.0129	.0104	.0155
19 .....	.3118	.3674	.3763	.3842	.3056	.3666	.3600	.3607	.2971	.3590	.3331	.5745	.3694	.3641	.3475	.3757
20 .....	.0087	.0099	.0123	.0114	.0096	.0089	.0303	.0119	.0110	.0026	.0098	.0029	.0052	.0229	.0132	.0027
21 .....	.0004	.0004	.0004	.0004	.0006	.0004	.0004	.0004	.0004	.0004	.0004	.0005	.0004	.0004	.0004	.0005
22 .....	.0008	.0006	.0007	.0007	.0024	.0006	.0009	.0008	.0008	.0005	.0010	.0007	.0006	.0007	.0009	.0006
23 .....	.0009	.0009	.0010	.0011	.0011	.0009	.0013	.0010	.0009	.0008	.0034	.0012	.0009	.0012	.0012	.0009
24 .....	.0009	.0010	.0011	.0012	.0010	.0010	.0012	.0010	.0009	.0009	.0010	.0013	.0010	.0010	.0010	.0010
25 .....	.0178	.0153	.0213	.0235	.0206	.0181	.0221	.0196	.0172	.0196	.0219	.0220	.0195	.0209	.0191	.0180
26 .....	.0092	.0105	.0111	.0118	.0116	.0095	.0136	.0111	.0101	.0088	.0105	.0108	.0100	.0106	.0101	.0097
27 .....	.0034	.0030	.0034	.0038	.0035	.0030	.0036	.0034	.0030	.0043	.0036	.0046	.0037	.0033	.0032	.0038
28 .....	.0370	.0358	.0522	.0561	.0585	.0398	.0605	.0483	.0414	.0470	.0582	.0353	.0464	.0503	.0452	.0293
29 .....	.0302	.0345	.0377	.0393	.0339	.0339	.0393	.0357	.0307	.0342	.0366	.0480	.0356	.0368	.0348	.0372
30 .....	.0122	.0135	.0165	.0175	.0155	.0147	.0183	.0157	.0131	.0136	.0159	.0174	.0143	.0150	.0149	.0145
31 .....	.0081	.0098	.0104	.0109	.0095	.0093	.0109	.0099	.0086	.0095	.0102	.0131	.0098	.0101	.0097	.0100
32 .....	.0024	.0026	.0030	.0032	.0029	.0025	.0032	.0029	.0024	.0025	.0030	.0040	.0027	.0029	.0028	.0026
33 .....	.0057	.0059	.0068	.0072	.0065	.0059	.0072	.0064	.0059	.0059	.0064	.0076	.0061	.0063	.0060	.0061
34 .....	.0049	.0054	.0058	.0063	.0055	.0052	.0063	.0056	.0050	.0057	.0058	.0072	.0060	.0056	.0054	.0066
35 .....	.0353	.0340	.0410	.0495	.0417	.0357	.0464	.0393	.0355	.0379	.0414	.0443	.0400	.0389	.0399	.0417
36 .....	.0124	.0128	.0156	.0166	.0141	.0135	.0163	.0138	.0121	.0140	.0154	.0188	.0140	.0151	.0136	.0142
37 .....	.0261	.0295	.0324	.0337	.0292	.0293	.0338	.0307	.0264	.0294	.0314	.0416	.0307	.0316	.0300	.0309
38 .....	.0128	.0161	.0161	.0171	.0149	.0142	.0171	.0153	.0134	.0146	.0164	.0200	.0152	.0159	.0151	.0212
39 .....	.0018	.0020	.0022	.0023	.0020	.0020	.0023	.0021	.0018	.0020	.0022	.0029	.0021	.0022	.0021	.0021
Total .....	.5982	.6745	.7427	.7717	.6696	.6707	.7731	.7041	.6042	.6729	.7195	.9525	.7027	.7248	.6859	.7083

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	50.0002	51.0101	51.0102	51.0300	51.0400	52.0100	52.0200	52.0300	52.0400	52.0500	53.0100	53.0200	53.0300	53.0400	53.0500	53.0600
1	0.0037	0.0033	0.0037	0.0032	0.0034	0.0032	0.0032	0.0025	0.0027	0.0028	0.0035	0.0030	0.0031	0.0030	0.0038	0.0030
2 .....	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0024	.0023	.0027	.0030	.0023	.0023	.0054	.0019	.0018	.0021	.0021	.0028	.0021	.0023	.0025	.0027
5 .....	.0001	.0001	.0002	.0002	.0001	.0001	.0001	.0001	.0001	.0011	.0001	.0001	.0002	.0002	.0001	.0005
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0131	.0101	.0107	.0096	.0102	.0127	.0112	.0086	.0093	.0133	.0100	.0102	.0129	.0096	.0168	.0093
8 .....	.0068	.0060	.0067	.0060	.0062	.0059	.0058	.0046	.0050	.0051	.0065	.0055	.0056	.0055	.0068	.0054
9 .....	.0007	.0002	.0003	.0002	.0003	.0003	.0003	.0002	.0002	.0002	.0003	.0002	.0002	.0003	.0003	.0002
10 .....	.0045	.0039	.0044	.0039	.0041	.0039	.0039	.0030	.0033	.0034	.0043	.0036	.0038	.0036	.0046	.0036
11 .....	.0024	.0030	.0053	.0026	.0053	.0028	.0032	.0022	.0018	.0028	.0021	.0028	.0020	.0026	.0026	.0025
12 .....	.0085	.0061	.0194	.0060	.0068	.0065	.0076	.0067	.0069	.0069	.0084	.0082	.0110	.0092	.0094	.0084
13 .....	.0040	.0038	.0061	.0062	.0080	.0053	.0059	.0035	.0036	.0053	.0038	.0056	.0042	.0039	.0048	.0100
14 .....	.0020	.0066	.0088	.0044	.0307	.0054	.0083	.0030	.0029	.0043	.0037	.0027	.0034	.0035	.0050	.0017
15 .....	.0017	.0016	.0019	.0015	.0019	.0024	.0036	.0026	.0012	.0023	.0016	.0025	.0017	.0016	.0018	.0019
16 .....	.0028	.0014	.0016	.0014	.0016	.0015	.0017	.0015	.0011	.0015	.0017	.0017	.0018	.0025	.0016	.0010
17 .....	.0104	.0036	.0090	.0123	.0044	.0118	.0108	.0113	.0109	.0090	.0033	.0148	.0081	.0164	.0056	.0137
18 .....	.0098	.0098	.0141	.0122	.0129	.0314	.0095	.0104	.0131	.0213	.0122	.0075	.0138	.0091	.0123	.0033
19 .....	.4569	.3178	.2671	.3208	.2955	.3258	.3298	.2488	.2946	.2892	.0094	.0116	.0040	.0049	.0059	.0041
20 .....	.0043	.0502	.0941	.0422	.0241	.0167	.0161	.0168	.0077	.0112	.4512	.3211	.3398	.3295	.4233	.3191
21 .....	.0004	.0004	.0004	.0004	.0004	.0004	.0006	.0003	.0003	.0003	.0004	.0004	.0004	.0004	.0004	.0004
22 .....	.0016	.0007	.0007	.0006	.0006	.0007	.0007	.0007	.0008	.0007	.0007	.0007	.0006	.0008	.0007	.0007
23 .....	.0011	.0016	.0024	.0016	.0014	.0012	.0009	.0044	.0241	.0011	.0019	.0011	.0012	.0010	.0017	.0009
24 .....	.0013	.0012	.0023	.0011	.0014	.0022	.0011	.0012	.0009	.0010	.0012	.0011	.0016	.0011	.0013	.0010
25 .....	.0204	.0217	.0256	.0217	.0221	.0222	.0207	.0168	.0168	.0216	.0172	.0223	.0208	.0215	.0223	.0254
26 .....	.0116	.0122	.0139	.0116	.0126	.0112	.0104	.0091	.0101	.0122	.0136	.0115	.0138	.0119	.0346	.0110
27 .....	.0037	.0032	.0037	.0035	.0035	.0037	.0034	.0031	.0033	.0030	.0034	.0034	.0031	.0035	.0038	.0036
28 .....	.0383	.0635	.0828	.0450	.0774	.0529	.0535	.0557	.0316	.0495	.0476	.0530	.0505	.0485	.0618	.0504
29 .....	.0427	.0369	.0413	.0373	.0380	.0364	.0387	.0286	.0309	.0322	.0405	.0342	.0352	.0342	.0430	.0335
30 .....	.0214	.0188	.0261	.0205	.0215	.0150	.0166	.0117	.0147	.0127	.0153	.0182	.0184	.0172	.0208	.0179
31 .....	.0118	.0105	.0118	.0107	.0107	.0103	.0122	.0080	.0086	.0090	.0108	.0096	.0098	.0096	.0119	.0096
32 .....	.0036	.0033	.0035	.0029	.0033	.0029	.0030	.0022	.0023	.0027	.0033	.0026	.0028	.0026	.0034	.0027
33 .....	.0074	.0097	.0074	.0060	.0064	.0067	.0065	.0057	.0056	.0061	.0067	.0080	.0087	.0081	.0091	.0083
34 .....	.0065	.0057	.0068	.0058	.0060	.0060	.0058	.0045	.0051	.0052	.0062	.0056	.0056	.0054	.0067	.0053
35 .....	.0608	.0400	.0505	.0517	.0588	.0439	.0418	.0329	.0362	.0363	.0392	.0377	.0411	.0384	.0435	.0354
36 .....	.0176	.0161	.0186	.0164	.0163	.0156	.0150	.0116	.0124	.0131	.0160	.0140	.0139	.0140	.0170	.0133
37 .....	.0368	.0317	.0354	.0316	.0327	.0314	.0313	.0246	.0267	.0276	.0350	.0294	.0302	.0294	.0370	.0286
38 .....	.0185	.0165	.0187	.0180	.0166	.0157	.0252	.0127	.0133	.0139	.0169	.0148	.0151	.0152	.0183	.0155
39 .....	.0025	.0022	.0024	.0022	.0022	.0022	.0021	.0017	.0018	.0019	.0024	.0020	.0021	.0020	.0025	.0020
Total .....	.8424	.7259	.8108	.7246	.7499	.7187	.7160	.5634	.6122	.6321	.8024	.6738	.6928	.6728	.8471	.6559

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	53.0700	53.0800	54.0100	54.0200	54.0300	54.0400	54.0500	54.0600	54.0700	55.0100	55.0200	55.0300	56.0100	56.0200	56.0300	56.0400
1	0.0029	0.0030	0.0027	0.0027	0.0022	0.0025	0.0024	0.0037	0.0023	0.0024	0.0030	0.0030	0.0038	0.0029	0.0034	0.0034
2 .....	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0037	.0022	.0022	.0021	.0019	.0018	.0017	.0026	.0020	.0022	.0024	.0024	.0027	.0023	.0022	.0020
5 .....	.0007	.0001	.0002	.0002	.0003	.0002	.0001	.0001	.0002	.0003	.0002	.0002	.0002	.0001	.0002	.0001
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0098	.0112	.0097	.0091	.0080	.0092	.0081	.0125	.0081	.0081	.0096	.0103	.0113	.0088	.0101	.0096
8 .....	.0052	.0055	.0049	.0048	.0041	.0044	.0044	.0069	.0043	.0044	.0054	.0055	.0068	.0052	.0061	.0061
9 .....	.0002	.0002	.0002	.0003	.0002	.0003	.0002	.0003	.0002	.0002	.0003	.0002	.0003	.0003	.0003	.0003
10 .....	.0035	.0037	.0033	.0032	.0027	.0030	.0030	.0046	.0029	.0029	.0036	.0036	.0046	.0035	.0041	.0042
11 .....	.0018	.0100	.0055	.0042	.0043	.0052	.0052	.0026	.0041	.0055	.0043	.0026	.0044	.0026	.0029	.0017
12 .....	.0077	.0097	.0068	.0066	.0068	.0074	.0079	.0067	.0064	.0071	.0067	.0067	.0090	.0396	.0086	.0076
13 .....	.0059	.0045	.0062	.0060	.0043	.0048	.0042	.0060	.0055	.0041	.0058	.0052	.0053	.0055	.0061	.0036
14 .....	.0156	.0071	.0035	.0087	.0050	.0057	.0083	.0078	.0033	.0014	.0047	.0036	.0096	.0080	.0208	.0037
15 .....	.0015	.0023	.0017	.0026	.0014	.0083	.0013	.0017	.0019	.0018	.0032	.0014	.0162	.0015	.0021	.0021
16 .....	.0043	.0014	.0058	.0026	.0062	.0042	.0009	.0014	.0025	.0140	.0083	.0013	.0030	.0009	.0014	.0011
17 .....	.0028	.0055	.0149	.0095	.0117	.0121	.0077	.0072	.0111	.0053	.0126	.0116	.0035	.0009	.0043	.0033
18 .....	.0019	.0112	.0236	.0123	.0149	.0118	.0069	.0108	.0152	.0018	.0211	.0182	.0156	.0034	.0138	.0086
19 .....	.0029	.0035	.0041	.0183	.0056	.0034	.0029	.0039	.0031	.0029	.0041	.0043	.0093	.0053	.0063	.0068
20 .....	.3192	.3347	.2432	.2287	.2075	.2396	.2521	.4360	.2287	.2399	.2994	.3280	.3298	.2669	.3600	.4417
21 .....	.0003	.0004	.0003	.0003	.0003	.0003	.0003	.0004	.0003	.0003	.0003	.0003	.0004	.0003	.0004	.0004
22 .....	.0010	.0111	.0005	.0006	.0006	.0005	.0005	.0007	.0005	.0004	.0006	.0005	.0007	.0005	.0006	.0008
23 .....	.0009	.0012	.0112	.0045	.0063	.0038	.0039	.0012	.0127	.0009	.0011	.0009	.0024	.0014	.0018	.0024
24 .....	.0010	.0011	.0012	.0009	.0017	.0015	.0054	.0021	.0013	.0009	.0018	.0010	.0017	.0028	.0013	.0012
25 .....	.0363	.0213	.0215	.0226	.0202	.0198	.0200	.0226	.0204	.0183	.0225	.0214	.0261	.0292	.0211	.0185
26 .....	.0105	.0141	.0107	.0094	.0083	.0096	.0101	.0128	.0091	.0092	.0111	.0116	.0139	.0133	.0134	.0126
27 .....	.0076	.0034	.0038	.0033	.0034	.0031	.0029	.0040	.0034	.0034	.0035	.0036	.0039	.0037	.0034	.0031
28 .....	.0358	.0369	.0593	.0746	.0498	.0407	.0383	.0847	.0447	.0548	.0541	.0477	.1011	.0580	.0625	.0379
29 .....	.0331	.0348	.0308	.0300	.0256	.0277	.0276	.0434	.0269	.0273	.0336	.0340	.0424	.0323	.0380	.0388
30 .....	.0167	.0182	.0150	.0159	.0118	.0124	.0167	.0210	.0120	.0151	.0175	.0176	.0190	.0130	.0167	.0154
31 .....	.0095	.0095	.0086	.0084	.0072	.0078	.0078	.0118	.0075	.0077	.0095	.0095	.0120	.0092	.0106	.0106
32 .....	.0026	.0027	.0024	.0023	.0019	.0022	.0022	.0034	.0021	.0021	.0028	.0027	.0035	.0028	.0030	.0031
33 .....	.0075	.0082	.0060	.0061	.0053	.0056	.0057	.0074	.0053	.0070	.0076	.0074	.0081	.0070	.0069	.0065
34 .....	.0055	.0059	.0051	.0049	.0042	.0048	.0046	.0071	.0044	.0046	.0054	.0056	.0283	.0054	.0059	.0058
35 .....	.0339	.0419	.0374	.0313	.0264	.0311	.0320	.0439	.0292	.0310	.0370	.0369	.0585	.0439	.0464	.0387
36 .....	.0129	.0133	.0124	.0122	.0103	.0114	.0110	.0173	.0106	.0115	.0134	.0141	.0176	.0134	.0150	.0146
37 .....	.0284	.0300	.0265	.0258	.0221	.0238	.0238	.0374	.0231	.0234	.0289	.0292	.0364	.0279	.0328	.0335
38 .....	.0144	.0151	.0135	.0134	.0112	.0133	.0127	.0187	.0130	.0122	.0149	.0148	.0205	.0149	.0168	.0162
39 .....	.0019	.0021	.0018	.0018	.0015	.0016	.0016	.0026	.0016	.0016	.0020	.0020	.0025	.0019	.0023	.0023
Total .....	.6500	.6869	.6069	.5903	.5055	.5446	.5446	.8573	.5299	.5364	.6626	.6692	.8346	.6383	.7517	.7683

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	57.0100	57.0200	57.0300	58.0100	58.0200	58.0300	58.0400	58.0500	59.0100	59.0200	59.0301	59.0302	60.0100	60.0200	60.0400	61.0100
1	0.0038	0.0044	0.0034	0.0030	0.0026	0.0031	0.0032	0.0047	0.0022	0.0024	0.0016	0.0024	0.0032	0.0032	0.0036	0.0033
2 .....	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0002	.0001	.0001	0	.0001	.0001	.0001	.0001	.0001
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0029	.0034	.0025	.0046	.0030	.0021	.0024	.0032	.0018	.0020	.0014	.0018	.0021	.0021	.0023	.0023
5 .....	.0003	.0004	.0002	.0006	.0134	.0001	.0002	.0002	.0001	.0001	.0001	.0002	.0001	.0001	.0001	.0002
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0118	.0149	.0113	.0098	.0096	.0095	.0098	.0205	.0096	.0100	.0063	.0092	.0095	.0103	.0106	.0249
8 .....	.0069	.0079	.0062	.0054	.0048	.0057	.0057	.0085	.0041	.0043	.0029	.0043	.0058	.0057	.0065	.0060
9 .....	.0003	.0003	.0003	.0002	.0002	.0002	.0004	.0003	.0008	.0012	.0006	.0002	.0003	.0003	.0003	.0003
10 .....	.0046	.0054	.0042	.0036	.0032	.0039	.0038	.0048	.0038	.0029	.0062	.0029	.0048	.0039	.0045	.0048
11 .....	.0025	.0022	.0028	.0033	.0038	.0020	.0028	.0043	.0014	.0012	.0011	.0013	.0014	.0013	.0016	.0013
12 .....	.0066	.0086	.0070	.0100	.0099	.0118	.0095	.0125	.0084	.0056	.0046	.0066	.0084	.0087	.0089	.0058
13 .....	.0048	.0088	.0062	.0121	.0084	.0051	.0040	.0061	.0043	.0045	.0034	.0036	.0036	.0033	.0041	.0050
14 .....	.0039	.0066	.0219	.0146	.0075	.0053	.0049	.0073	.0021	.0057	.0064	.0044	.0045	.0022	.0037	.0019
15 .....	.0028	.0022	.0019	.0014	.0016	.0015	.0015	.0030	.0018	.0058	.0011	.0013	.0020	.0015	.0027	.0038
16 .....	.0165	.0020	.0014	.0010	.0010	.0012	.0010	.0018	.0016	.0014	.0017	.0023	.0012	.0011	.0015	.0020
17 .....	.0023	.0092	.0052	.0090	.0059	.0042	.0096	.0107	.0087	.0143	.0032	.0195	.0060	.0190	.0087	.0058
18 .....	.0129	.0181	.0238	.0029	.0296	.0145	.0109	.0100	.0091	.0125	.0088	.0088	.0086	.0081	.0096	.0102
19 .....	.0062	.0063	.0068	.0032	.0040	.0058	.0052	.0129	.0093	.0090	.0060	.0139	.0115	.0089	.0074	.0103
20 .....	.4478	.4900	.3699	.2728	.2249	.3675	.3316	.3531	.0029	.0030	.0064	.0039	.0224	.0069	.0284	.0088
21 .....	.0004	.0005	.0004	.0004	.0003	.0003	.0008	.0005	.2376	.2183	.1188	.2512	.0004	.0004	.0004	.0004
22 .....	.0007	.0008	.0006	.0006	.0007	.0009	.0007	.0008	.0008	.0010	.0013	.0008	.3464	.3659	.4184	.4044
23 .....	.0018	.0016	.0015	.0009	.0010	.0016	.0011	.0021	.0008	.0009	.0022	.0008	.0147	.0019	.0046	.0032
24 .....	.0013	.0015	.0012	.0011	.0011	.0013	.0012	.0016	.0009	.0008	.0007	.0008	.0011	.0011	.0013	.0011
25 .....	.0244	.0266	.0218	.0310	.0254	.0183	.0242	.0292	.0152	.0204	.0178	.0155	.0214	.0210	.0212	.0172
26 .....	.0128	.0171	.0133	.0116	.0110	.0149	.0121	.0151	.0092	.0080	.0060	.0083	.0112	.0114	.0128	.0094
27 .....	.0046	.0049	.0038	.0047	.0033	.0030	.0033	.0048	.0026	.0029	.0019	.0031	.0031	.0034	.0036	.0033
28 .....	.0525	.0703	.0586	.0691	.0476	.0424	.0663	.0608	.0328	.0574	.0564	.0251	.0332	.0282	.0348	.0369
29 .....	.0432	.0490	.0389	.0340	.0301	.0361	.0369	.0447	.0257	.0273	.0186	.0293	.0363	.0360	.0413	.0385
30 .....	.0243	.0261	.0173	.0197	.0185	.0184	.0186	.0230	.0099	.0111	.0082	.0103	.0203	.0185	.0202	.0145
31 .....	.0120	.0136	.0108	.0100	.0086	.0101	.0102	.0126	.0072	.0077	.0054	.0077	.0100	.0100	.0114	.0106
32 .....	.0033	.0040	.0032	.0028	.0024	.0030	.0028	.0039	.0020	.0021	.0015	.0020	.0028	.0027	.0032	.0028
33 .....	.0086	.0096	.0076	.0092	.0068	.0083	.0098	.0106	.0048	.0046	.0035	.0047	.0099	.0110	.0104	.0060
34 .....	.0068	.0077	.0060	.0056	.0051	.0086	.0057	.0074	.0042	.0045	.0032	.0048	.0055	.0057	.0062	.0060
35 .....	.0423	.0588	.0383	.0395	.0391	.0397	.0401	.0965	.0296	.0278	.0200	.0277	.0422	.0440	.0507	.0383
36 .....	.0171	.0198	.0155	.0138	.0123	.0138	.0148	.0376	.0102	.0109	.0075	.0104	.0137	.0136	.0155	.0141
37 .....	.0372	.0424	.0335	.0288	.0257	.0311	.0307	.0383	.0219	.0231	.0157	.0233	.0313	.0310	.0357	.0330
38 .....	.0189	.0224	.0171	.0164	.0140	.0155	.0162	.0204	.0116	.0129	.0092	.0204	.0159	.0156	.0180	.0163
39 .....	.0026	.0029	.0023	.0020	.0018	.0021	.0021	.0026	.0015	.0016	.0011	.0016	.0021	.0021	.0024	.0023
Total .....	.8519	.9705	.7669	.6587	.5882	.7131	.7040	.8763	.5007	.5294	.3607	.5347	.7171	.7101	.8169	.7550

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	61.0200	61.0300	61.0500	61.0601	61.0602	61.0603	61.0700	62.0100	62.0200	62.0300	62.0400	62.0500	62.0600	62.0700	63.0100	63.0200
1	0.0022	0.0025	0.0026	0.0031	0.0029	0.0019	0.0030	0.0031	0.0033	0.0035	0.0029	0.0034	0.0028	0.0031	0.0036	0.0037
2 .....	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0016	.0024	.0019	.0024	.0021	.0016	.0021	.0021	.0023	.0031	.0022	.0020	.0021	.0020	.0027	.0036
5 .....	.0001	.0002	.0002	.0002	.0002	.0001	.0002	.0001	.0004	.0002	.0002	.0001	.0015	.0002	.0001	.0002
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0145	.0146	.0109	.0140	.0145	.0083	.0119	.0089	.0094	.0100	.0084	.0082	.0086	.0088	.0101	.0100
8 .....	.0041	.0046	.0047	.0054	.0050	.0035	.0053	.0057	.0062	.0064	.0053	.0054	.0052	.0055	.0065	.0067
9 .....	.0013	.0004	.0004	.0039	.0036	.0030	.0003	.0002	.0003	.0003	.0004	.0025	.0007	.0002	.0003	.0003
10 .....	.0042	.0041	.0077	.0101	.0045	.0052	.0039	.0038	.0042	.0042	.0036	.0033	.0035	.0038	.0044	.0044
11 .....	.0010	.0011	.0022	.0080	.0021	.0012	.0029	.0021	.0024	.0022	.0044	.0058	.0027	.0025	.0025	.0030
12 .....	.0042	.0042	.0048	.0059	.0076	.0073	.0057	.0077	.0083	.0081	.0083	.0079	.0071	.0079	.0067	.0068
13 .....	.0045	.0038	.0043	.0056	.0060	.0043	.0057	.0037	.0037	.0060	.0055	.0053	.0042	.0039	.0056	.0054
14 .....	.0020	.0023	.0043	.0057	.0041	.0035	.0041	.0037	.0035	.0044	.0108	.0060	.0035	.0109	.0188	.0063
15 .....	.0044	.0022	.0013	.0208	.0386	.0066	.0036	.0028	.0016	.0018	.0020	.0016	.0014	.0021	.0019	.0020
16 .....	.0028	.0014	.0012	.0052	.0064	.0032	.0014	.0017	.0014	.0014	.0018	.0017	.0033	.0020	.0036	.0106
17 .....	.0045	.0176	.0104	.0097	.0055	.0039	.0156	.0042	.0067	.0065	.0040	.0031	.0097	.0032	.0016	.0011
18 .....	.0143	.0089	.0320	.0251	.0325	.0163	.0083	.0073	.0099	.0178	.0139	.0115	.0062	.0187	.0140	.0023
19 .....	.0037	.0123	.0114	.0094	.0078	.0044	.0050	.0078	.0071	.0079	.0043	.0035	.0035	.0047	.0053	.0053
20 .....	.0042	.0090	.0042	.0110	.0112	.0045	.0051	.0274	.0333	.0225	.0104	.0103	.0093	.0187	.0401	.0037
21 .....	.0003	.0006	.0019	.0029	.0018	.0042	.0033	.0004	.0005	.0004	.0003	.0003	.0003	.0006	.0004	.0005
22 .....	.2611	.2740	.2137	.2350	.1996	.1548	.2836	.0010	.0007	.0006	.0005	.0005	.0005	.0006	.0007	.0007
23 .....	.0016	.0009	.0009	.0013	.0011	.0008	.0012	.3616	.4014	.4015	.3100	.2821	.3240	.2938	.3359	.4315
24 .....	.0007	.0008	.0009	.0016	.0012	.0008	.0011	.0011	.0011	.0021	.0011	.0010	.0011	.0020	.0013	.0012
25 .....	.0130	.0179	.0190	.0272	.0240	.0175	.0255	.0179	.0178	.0215	.0175	.0172	.0181	.0207	.0207	.0231
26 .....	.0067	.0077	.0087	.0102	.0114	.0093	.0096	.0117	.0123	.0116	.0108	.0101	.0107	.0115	.0135	.0138
27 .....	.0022	.0031	.0032	.0037	.0032	.0021	.0036	.0030	.0032	.0037	.0036	.0031	.0030	.0032	.0036	.0040
28 .....	.0321	.0355	.0777	.0626	.0591	.0409	.0787	.0386	.0397	.0437	.0382	.0375	.0383	.0662	.0513	.0391
29 .....	.0262	.0297	.0293	.0338	.0314	.0220	.0335	.0357	.0396	.0399	.0323	.0302	.0326	.0341	.0413	.0416
30 .....	.0093	.0118	.0126	.0167	.0146	.0091	.0134	.0144	.0140	.0159	.0130	.0143	.0134	.0143	.0193	.0161
31 .....	.0072	.0084	.0083	.0096	.0088	.0063	.0093	.0099	.0108	.0111	.0092	.0085	.0091	.0103	.0116	.0135
32 .....	.0020	.0022	.0024	.0028	.0025	.0018	.0029	.0028	.0030	.0030	.0025	.0025	.0027	.0028	.0034	.0033
33 .....	.0041	.0046	.0054	.0061	.0057	.0046	.0063	.0065	.0063	.0063	.0059	.0059	.0065	.0072	.0076	.0095
34 .....	.0039	.0046	.0049	.0056	.0048	.0035	.0057	.0055	.0061	.0061	.0050	.0048	.0051	.0056	.0063	.0064
35 .....	.0245	.0280	.0301	.0363	.0351	.0321	.0380	.0376	.0358	.0393	.0365	.0386	.0383	.0372	.0918	.0472
36 .....	.0096	.0108	.0120	.0140	.0130	.0088	.0133	.0151	.0149	.0164	.0145	.0129	.0139	.0144	.0162	.0196
37 .....	.0224	.0250	.0251	.0289	.0268	.0187	.0287	.0307	.0336	.0342	.0277	.0260	.0280	.0293	.0354	.0351
38 .....	.0114	.0137	.0129	.0153	.0138	.0105	.0147	.0159	.0219	.0181	.0148	.0165	.0185	.0180	.0193	.0204
39 .....	.0015	.0017	.0017	.0020	.0018	.0013	.0020	.0021	.0023	.0023	.0019	.0018	.0019	.0020	.0024	.0024
Total .....	.5139	.5727	.5753	.6608	.6146	.4282	.6582	.7040	.7692	.7840	.6338	.5952	.6411	.6720	.8101	.8045

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	63.0300	64.0101	64.0102	64.0104	64.0105	64.0200	64.0301	64.0302	64.0400	64.0501	64.0502	64.0503	64.0504	64.0600	64.0701	64.0702
1	0.0023	0.0019	0.0011	0.0027	0.0033	0.0041	0.0023	0.0028	0.0026	0.0032	0.0044	0.0038	0.0026	0.0342	0.0031	0.0030
2 .....	.0001	.0001	0	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0017	.0014	.0012	.0020	.0028	.0027	.0021	.0021	.0021	.0031	.0051	.0025	.0021	.0033	.0025	.0025
5 .....	.0003	.0014	.0023	.0007	.0005	.0001	.0001	.0001	.0001	.0004	.0012	.0002	.0003	.0001	.0001	.0001
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0070	.0058	.0034	.0099	.0110	.0133	.0072	.0080	.0078	.0100	.0148	.0131	.0084	.0108	.0098	.0100
8 .....	.0041	.0035	.0020	.0051	.0060	.0072	.0042	.0049	.0046	.0058	.0077	.0071	.0047	.0207	.0057	.0056
9 .....	.0003	.0002	.0001	.0002	.0003	.0008	.0030	.0030	.0011	.0032	.0023	.0003	.0022	.0004	.0009	.0015
10 .....	.0027	.0024	.0013	.0033	.0043	.0047	.0055	.0035	.0058	.0039	.0050	.0046	.0031	.0037	.0038	.0037
11 .....	.0025	.0028	.0008	.0040	.0035	.0031	.0077	.0060	.0040	.0062	.0048	.0033	.0102	.0039	.0019	.0034
12 .....	.0069	.0057	.0025	.0074	.0213	.0168	.0090	.0065	.0066	.0236	.0256	.0204	.0181	.0181	.0156	.0165
13 .....	.0051	.0020	.0020	.0028	.0046	.0067	.0072	.0116	.0061	.0047	.0100	.0053	.0069	.0100	.0085	.0058
14 .....	.0043	.0018	.0005	.0012	.0071	.0058	.0087	.0016	.0073	.0255	.0170	.0095	.0368	.0134	.0019	.0082
15 .....	.0011	.0009	.0005	.0013	.0070	.0233	.0076	.0016	.0047	.0017	.0417	.0127	.0019	.0016	.0013	.0015
16 .....	.0010	.0007	.0023	.0010	.0030	.0014	.0009	.0009	.0014	.0049	.0126	.0021	.0034	.0012	.0010	.0011
17 .....	.0029	.0097	.0020	.0083	.0029	.0079	.0021	.0006	.0067	.0012	.0017	.0057	.0007	.0041	.0023	.0064
18 .....	.0053	.0011	.0007	.0034	.0024	.0067	.0084	.0024	.0049	.0073	.0146	.0133	.0043	.0026	.0048	.0049
19 .....	.0027	.0023	.0012	.0040	.0046	.0083	.0041	.0024	.0032	.0038	.0056	.0061	.0029	.0044	.0044	.0041
20 .....	.0300	.0015	.0009	.0022	.0028	.0540	.0294	.0029	.0035	.0031	.0038	.0034	.0025	.0027	.0025	.0026
21 .....	.0003	.0002	.0001	.0003	.0004	.0004	.0003	.0003	.0003	.0004	.0005	.0005	.0003	.0004	.0004	.0004
22 .....	.0004	.0003	.0002	.0005	.0005	.0008	.0007	.0004	.0005	.0007	.0008	.0006	.0004	.0005	.0005	.0005
23 .....	.2264	.0007	.0003	.0011	.0014	.0020	.0013	.0009	.0011	.0013	.0015	.0014	.0011	.0012	.0010	.0011
24 .....	.0008	.1918	.0912	.3132	.3138	.3492	.1779	.2722	.2445	.2573	.2399	.3772	.1780	.2453	.3378	.3083
25 .....	.0153	.0147	.0356	.0262	.0255	.0302	.0193	.0268	.0201	.0257	.0410	.0262	.0246	.0265	.0267	.0265
26 .....	.0084	.0064	.0033	.0091	.0171	.0164	.0086	.0090	.0085	.0185	.0221	.0174	.0146	.0153	.0134	.0141
27 .....	.0025	.0022	.0011	.0055	.0058	.0042	.0028	.0031	.0039	.0056	.0041	.0034	.0036	.0059	.0038	.0038
28 .....	.0307	.0454	.0201	.0325	.0468	.0629	.0443	.0472	.0513	.0518	.1442	.0469	.0669	.0472	.0304	.0438
29 .....	.0255	.0213	.0124	.0307	.0364	.0438	.0257	.0299	.0283	.0360	.0462	.0425	.0286	.0348	.0341	.0339
30 .....	.0148	.0091	.0061	.0126	.0161	.0190	.0128	.0172	.0180	.0295	.0209	.0229	.0156	.0180	.0145	.0151
31 .....	.0072	.0064	.0036	.0096	.0113	.0122	.0076	.0086	.0081	.0108	.0133	.0116	.0082	.0101	.0098	.0099
32 .....	.0020	.0018	.0010	.0025	.0032	.0037	.0022	.0030	.0024	.0031	.0043	.0038	.0026	.0036	.0025	.0028
33 .....	.0051	.0043	.0022	.0055	.0091	.0093	.0049	.0052	.0050	.0097	.0114	.0094	.0074	.0082	.0079	.0078
34 .....	.0039	.0036	.0020	.0050	.0056	.0071	.0042	.0051	.0045	.0078	.0077	.0089	.0049	.0059	.0055	.0054
35 .....	.0322	.0258	.0128	.0365	.0536	.0547	.0302	.0343	.0314	.0542	.0708	.0598	.0413	.0520	.0492	.0449
36 .....	.0102	.0101	.0054	.0152	.0181	.0209	.0113	.0135	.0127	.0164	.0226	.0218	.0129	.0173	.0172	.0161
37 .....	.0219	.0183	.0105	.0265	.0309	.0377	.0219	.0257	.0242	.0305	.0395	.0363	.0245	.0301	.0294	.0290
38 .....	.0131	.0099	.0059	.0132	.0231	.0194	.0137	.0235	.0151	.0265	.0311	.0236	.0130	.0258	.0151	.0176
39 .....	.0015	.0013	.0007	.0018	.0021	.0026	.0015	.0018	.0017	.0021	.0027	.0025	.0017	.0020	.0020	.0020
Total .....	.5024	.4186	.2395	.6072	.7085	.8636	.5004	.5886	.5536	.6979	.9045	.8307	.5613	.6833	.6735	.6639

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	64.0800	64.0900	64.1000	64.1100	64.1200	65.0100	65.0200	65.0300	65.0400	65.0500	65.0600	65.0701	65.0702	66.0000	67.0000	68.0100
1	0.0059	0.0038	0.0030	0.0031	0.0036	0.0033	0.0034	0.0039	0.0033	0.0031	0.0008	0.0046	0.0053	0.0028	0.0036	0.0027
2 .....	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	0	.0002	.0002	.0001	.0001	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0024	.0037	.0022	.0023	.0030	.0065	.0083	.0060	.0063	.0107	.0022	.0036	.0025	.0014	.0019	.0063
5 .....	.0001	.0009	.0001	.0001	.0002	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0107	.0130	.0110	.0097	.0157	.0775	.0134	.0113	.0131	.0118	.0173	.0130	.0149	.0237	.0130	.0307
8 .....	.0057	.0068	.0054	.0056	.0059	.0060	.0062	.0068	.0057	.0061	.0013	.0084	.0096	.0044	.0069	.0023
9 .....	.0009	.0003	.0026	.0002	.0005	.0002	.0003	.0003	.0005	.0002	.0001	.0003	.0003	.0002	.0003	.0001
10 .....	.0037	.0044	.0035	.0038	.0047	.0040	.0043	.0046	.0048	.0035	.0027	.0052	.0059	.0030	.0042	.0016
11 .....	.0030	.0172	.0017	.0057	.0065	.0012	.0013	.0014	.0014	.0013	.0003	.0024	.0021	.0010	.0015	.0005
12 .....	.0181	.0222	.0201	.0137	.0171	.0051	.0061	.0058	.0070	.0074	.0014	.0115	.0154	.0052	.0095	.0023
13 .....	.0070	.0112	.0061	.0053	.0092	.0063	.0078	.0061	.0064	.0088	.0011	.0047	.0043	.0026	.0033	.0031
14 .....	.0025	.0263	.0015	.0087	.0035	.0015	.0019	.0017	.0018	.0013	.0004	.0024	.0021	.0019	.0017	.0007
15 .....	.0160	.0130	.0083	.0097	.0102	.0022	.0014	.0015	.0015	.0012	.0004	.0027	.0020	.0010	.0016	.0007
16 .....	.0012	.0015	.0014	.0014	.0014	.0012	.0014	.0010	.0010	.0008	.0010	.0011	.0012	.0007	.0011	.0007
17 .....	.0033	.0008	.0058	.0080	.0043	.0014	.0006	.0005	.0021	.0006	.0005	.0005	.0005	.0007	.0005	.0008
18 .....	.0064	.0032	.0238	.0120	.0082	.0033	.0036	.0025	.0051	.0021	.0014	.0024	.0024	.0024	.0022	.0023
19 .....	.0046	.0046	.0039	.0038	.0141	.0044	.0018	.0147	.0017	.0022	.0027	.0020	.0011	.0016	.0035	.0023
20 .....	.0032	.0035	.0028	.0078	.0028	.0038	.0034	.0028	.0035	.0032	.0013	.0035	.0044	.0155	.0135	.0023
21 .....	.0003	.0005	.0003	.0004	.0003	.0004	.0008	.0007	.0004	.0003	.0001	.0005	.0005	.0003	.0003	.0002
22 .....	.0005	.0007	.0005	.0005	.0006	.0008	.0007	.0006	.0238	.0072	.0003	.0011	.0007	.0004	.0006	.0008
23 .....	.0012	.0015	.0010	.0010	.0014	.0008	.0008	.0009	.0010	.0008	.0002	.0011	.0014	.0007	.0018	.0006
24 .....	.2989	.2132	.2472	.3196	.2244	.0010	.0011	.0011	.0014	.0010	.0003	.0016	.0018	.0009	.0012	.0004
25 .....	.0285	.0411	.0261	.0206	.0248	.3870	.4697	.5207	.2916	.3465	.0585	.5376	.6093	.0126	.0196	.0196
26 .....	.0147	.0180	.0166	.0130	.0135	.0076	.0084	.0129	.0107	.0136	.0023	.0204	.0298	.3067	.3115	.0038
27 .....	.0034	.0074	.0036	.0030	.0032	.0028	.0030	.0032	.0036	.0030	.0031	.0034	.0055	.0025	.0027	.1066
28 .....	.0445	.0607	.0600	.0404	.0534	.0259	.0308	.0301	.0304	.0268	.0075	.0272	.0274	.0172	.0225	.0124
29 .....	.0342	.0417	.0325	.0344	.0328	.0386	.0444	.0483	.0340	.0331	.0087	.0488	.0552	.0278	.0375	.0153
30 .....	.0154	.0361	.0153	.0139	.0160	.0160	.0175	.0163	.0387	.0187	.0104	.0422	.0334	.0141	.0178	.0107
31 .....	.0096	.0123	.0092	.0096	.0093	.0107	.0144	.0143	.0103	.0106	.0044	.0234	.0247	.0076	.0101	.0069
32 .....	.0029	.0039	.0028	.0030	.0029	.0030	.0032	.0040	.0044	.0032	.0010	.0057	.0068	.0027	.0039	.0013
33 .....	.0082	.0099	.0083	.0070	.0076	.0059	.0057	.0065	.0057	.0057	.0028	.0083	.0098	.0056	.1098	.0023
34 .....	.0056	.0070	.0055	.0052	.0054	.0054	.0066	.0066	.0053	.0063	.0015	.0078	.0101	.0047	.0089	.0028
35 .....	.0478	.1498	.0480	.0396	.0600	.0404	.0311	.0353	.0685	.0413	.0113	.0612	.0919	.0278	.0547	.0187
36 .....	.0170	.0191	.0157	.0154	.0225	.0144	.0148	.0164	.0143	.0199	.0035	.0286	.0331	.0109	.0174	.0057
37 .....	.0295	.0357	.0280	.0295	.0277	.0324	.0338	.0368	.0292	.0282	.0071	.0418	.0477	.0239	.0323	.0126
38 .....	.0156	.0203	.0150	.0157	.0162	.0179	.0205	.0274	.0155	.0141	.0051	.0237	.0244	.0120	.0182	.0073
39 .....	.0020	.0024	.0019	.0020	.0019	.0022	.0023	.0025	.0020	.0019	.0005	.0029	.0033	.0016	.0022	.0009
Total .....	.6746	.8179	.6408	.6750	.6350	.7414	.7751	.8423	.6693	.6465	.1633	.9564	1.0919	.5476	.7396	.2896

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	68.0200	68.0301	68.0302	69.0100	69.0200	70.0150	70.0300	70.0400	70.0500	71.0100	71.0201	71.0202	72.0100	72.0201	72.0202	72.0203
1	0.0011	0.0046	0.0026	0.0035	0.0044	0.0045	0.0043	0.0051	0.0041	0.0062	0.0057	0	0.0066	0.0040	0.0052	0.0043
2	0	.0001	.0001	.0001	.0001	.0002	.0001	.0002	.0001	0	0	0	.0001	.0001	.0001	.0001
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0325	.0027	.0079	.0025	.0030	.0024	.0025	.0026	.0021	.0003	.0009	0	.0027	.0038	.0025	.0024
5	0	.0011	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0002	0	.0001	.0001	.0004	.0001
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0108	.1041	.0151	.0094	.0139	.0147	.0102	.0135	.0105	.0174	.0288	0	.0240	.0112	.0154	.0108
8 .....	.0019	.0066	.0043	.0061	.0076	.0080	.0077	.0092	.0076	.0007	.0022	0	.0057	.0071	.0063	.0078
9 .....	.0001	.0003	.0002	.0002	.0003	.0003	.0003	.0003	.0003	.0001	.0001	0	.0004	.0010	.0004	.0004
10 .....	.0013	.0043	.0028	.0040	.0048	.0051	.0049	.0057	.0048	.0005	.0013	0	.0049	.0095	.0046	.0073
11 .....	.0004	.0059	.0011	.0024	.0032	.0023	.0017	.0022	.0016	.0002	.0007	0	.0017	.0018	.0016	.0029
12 .....	.0019	.0088	.0044	.0086	.0134	.0126	.0109	.0127	.0086	.0008	.0043	0	.0108	.0075	.0121	.0148
13 .....	.0013	.0089	.0071	.0034	.0041	.0039	.0038	.0042	.0034	.0010	.0019	0	.0040	.0054	.0045	.0039
14 .....	.0004	.0170	.0013	.0016	.0018	.0019	.0017	.0020	.0015	.0003	.0009	0	.0036	.0033	.0030	.0018
15 .....	.0004	.0021	.0064	.0021	.0017	.0017	.0016	.0019	.0015	.0006	.0009	0	.0016	.0016	.0018	.0017
16 .....	.0004	.0121	.0009	.0010	.0011	.0011	.0010	.0012	.0009	.0005	.0009	0	.0023	.0010	.0142	.0010
17 .....	.0002	.0021	.0012	.0004	.0005	.0005	.0004	.0005	.0004	.0002	.0003	0	.0005	.0005	.0007	.0005
18 .....	.0011	.0125	.0058	.0019	.0023	.0022	.0019	.0023	.0018	.0012	.0017	0	.0022	.0026	.0031	.0021
19 .....	.0007	.0038	.0024	.0015	.0017	.0020	.0019	.0020	.0015	.0003	.0007	0	.0014	.0018	.0014	.0035
20 .....	.0010	.0064	.0048	.0025	.0032	.0041	.0035	.0039	.0030	.0007	.0015	0	.0034	.0029	.0028	.0036
21 .....	.0001	.0005	.0032	.0004	.0005	.0004	.0004	.0005	.0004	0	.0001	0	.0003	.0004	.0004	.0004
22 .....	.0002	.0007	.0009	.0005	.0006	.0007	.0008	.0007	.0006	.0001	.0002	0	.0005	.0006	.0006	.0006
23 .....	.0004	.0034	.0178	.0008	.0010	.0014	.0011	.0014	.0011	.0002	.0004	0	.0009	.0010	.0009	.0037
24 .....	.0003	.0014	.0008	.0011	.0015	.0017	.0014	.0018	.0014	.0001	.0004	0	.0015	.0016	.0091	.0015
25 .....	.0071	.0271	.0247	.0177	.0234	.0423	.0318	.0311	.0254	.0027	.0092	0	.0215	.0235	.0260	.0235
26 .....	.0027	.0191	.0069	.0130	.0166	.0185	.0174	.0226	.0170	.0013	.0055	0	.0179	.0117	.0139	.0149
27 .....	.1025	.1668	.1901	.0030	.0043	.0034	.0033	.0037	.0032	.0003	.0010	0	.0060	.0062	.0036	.0034
28 .....	.0067	.0530	.0341	.4368	.0241	.0251	.0228	.0269	.0216	.0039	.0089	0	.0237	.0294	.0313	.0270
29 .....	.0122	.0402	.0268	.0374	.5327	.0471	.0464	.0538	.0450	.0078	.0150	0	.0348	.0438	.0398	.0486
30 .....	.0076	.0325	.0145	.0167	.0198	.4858	.5249	.0521	.0153	.0041	.0129	0	.0208	.0209	.0179	.0233
31 .....	.0035	.0626	.0372	.0101	.0128	.0176	.0131	.6034	.5535	.0100	.0102	0	.0100	.0123	.0108	.0131
32 .....	.0010	.0044	.0021	.0037	.0064	.0055	.0047	.0062	.0050	.0018	.0579	0	.0052	.0051	.0041	.0052
33 .....	.0018	.0104	.0043	.0080	.0088	.0083	.0101	.0119	.0088	.0008	.0031	0	.3306	.0068	.0070	.0079
34 .....	.0019	.0115	.0108	.0064	.0090	.0072	.0069	.0082	.0069	.0007	.0024	0	.0095	.4911	.4182	.5182
35 .....	.0143	.0683	.0311	.0478	.0655	.1007	.0894	.0667	.0486	.0090	.0274	0	.0587	.0523	.0497	.1137
36 .....	.0045	.0188	.0118	.0177	.0231	.0239	.0224	.0306	.0235	.0019	.0090	0	.0132	.0203	.0149	.0191
37 .....	.0104	.0340	.0228	.0316	.0385	.0405	.0401	.0464	.0389	.0036	.0102	0	.0296	.0373	.0342	.0421
38 .....	.0054	.0182	.0117	.0185	.0224	.0273	.0195	.0229	.0188	.0020	.0061	0	.0162	.0219	.0182	.0254
39 .....	.0007	.0023	.0016	.0022	.0026	.0028	.0027	.0032	.0027	.0002	.0007	0	.0020	.0026	.0023	.0029
Total .....	.2391	.7786	.5216	.7247	.8806	.9276	.9177	1.0637	.8917	.0815	.2335	0	.6789	.8540	.7832	.9635

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	72.0204	72.0205	72.0300	73.0101	73.0102	73.0103	73.0104	73.0105	73.0106	73.0107	73.0108	73.0109	73.0200	73.0301	73.0302	73.0303
1	0.0031	0.0027	0.0045	0.0028	0.0051	0.0050	0.0038	0.0041	0.0050	0.0033	0.0039	0.0037	0.0041	0.0047	0.0051	0.0050
2 .....	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0020	.0017	.0027	.0020	.0028	.0024	.0022	.0027	.0029	.0018	.0022	.0021	.0025	.0027	.0026	.0025
5 .....	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0082	.0198	.0113	.0163	.0112	.0100	.0093	.0103	.0149	.0079	.0107	.0096	.0116	.0109	.0111	.0102
8 .....	.0057	.0047	.0081	.0050	.0076	.0087	.0069	.0073	.0085	.0061	.0071	.0067	.0071	.0084	.0092	.0090
9 .....	.0002	.0015	.0003	.0002	.0003	.0003	.0003	.0003	.0003	.0002	.0003	.0003	.0003	.0003	.0004	.0003
10 .....	.0038	.0039	.0055	.0034	.0053	.0058	.0046	.0047	.0057	.0041	.0046	.0043	.0048	.0057	.0062	.0060
11 .....	.0014	.0016	.0019	.0012	.0023	.0018	.0024	.0017	.0017	.0012	.0018	.0027	.0020	.0019	.0021	.0019
12 .....	.0053	.0059	.0079	.0053	.0079	.0088	.0128	.0089	.0079	.0054	.0079	.0099	.0222	.0084	.0094	.0086
13 .....	.0034	.0038	.0089	.0039	.0082	.0040	.0036	.0045	.0044	.0029	.0036	.0035	.0039	.0042	.0044	.0042
14 .....	.0028	.0035	.0053	.0032	.0021	.0018	.0036	.0025	.0026	.0014	.0017	.0027	.0018	.0019	.0024	.0021
15 .....	.0015	.0019	.0019	.0014	.0017	.0019	.0016	.0016	.0019	.0013	.0016	.0015	.0016	.0019	.0020	.0019
16 .....	.0012	.0012	.0012	.0010	.0011	.0010	.0009	.0010	.0012	.0008	.0010	.0009	.0010	.0011	.0012	.0011
17 .....	.0013	.0008	.0005	.0015	.0005	.0005	.0006	.0006	.0006	.0004	.0006	.0005	.0004	.0005	.0005	.0005
18 .....	.0037	.0042	.0026	.0047	.0024	.0021	.0023	.0022	.0026	.0020	.0022	.0023	.0021	.0022	.0023	.0023
19 .....	.0103	.0023	.0013	.0159	.0017	.0013	.0065	.0021	.0019	.0018	.0019	.0021	.0014	.0014	.0020	.0049
20 .....	.0420	.0026	.0031	.0045	.0057	.0042	.0104	.0101	.0107	.0030	.0080	.0053	.0030	.0034	.0039	.0047
21 .....	.0003	.0003	.0005	.0004	.0005	.0005	.0004	.0005	.0005	.0003	.0004	.0004	.0005	.0005	.0005	.0005
22 .....	.0005	.0004	.0006	.0018	.0006	.0007	.0006	.0007	.0007	.0005	.0006	.0006	.0006	.0007	.0007	.0007
23 .....	.0010	.0010	.0010	.0012	.0010	.0012	.0012	.0011	.0023	.0009	.0077	.0014	.0011	.0014	.0013	.0012
24 .....	.0010	.0037	.0026	.0019	.0015	.0016	.0012	.0013	.0015	.0014	.0013	.0015	.0014	.0017	.0017	.0018
25 .....	.0156	.0142	.0192	.0145	.0208	.0255	.0198	.0303	.0255	.0173	.0316	.0211	.0233	.0270	.0224	.0197
26 .....	.0099	.0085	.0131	.0089	.0133	.0166	.0185	.0164	.0176	.0101	.0163	.0155	.0178	.0161	.0144	.0129
27 .....	.0027	.0023	.0039	.0025	.0034	.0034	.0030	.0032	.0040	.0026	.0032	.0029	.0030	.0036	.0037	.0036
28 .....	.0354	.0539	.0310	.0346	.0292	.0251	.0257	.0251	.0283	.0185	.0268	.0239	.0234	.0262	.0277	.0279
29 .....	.0360	.0302	.0517	.0324	.0481	.0549	.0434	.0444	.0530	.0383	.0433	.0409	.0432	.0542	.0580	.0570
30 .....	.0127	.0135	.0173	.0111	.0190	.0203	.0179	.0198	.0225	.0145	.0202	.0160	.0200	.0174	.0276	.0199
31 .....	.0096	.0080	.0139	.0087	.0131	.0145	.0116	.0122	.0143	.0128	.0117	.0110	.0121	.0148	.0155	.0151
32 .....	.0030	.0035	.0058	.0028	.0040	.0047	.0041	.0046	.0045	.0032	.0045	.0038	.0065	.0063	.0058	.0058
33 .....	.0057	.0047	.0079	.0050	.0075	.0082	.0069	.0088	.0281	.0058	.0076	.0068	.0157	.0120	.0121	.0087
34 .....	.3891	.2857	.6644	.0049	.0079	.0082	.0063	.0064	.0081	.0058	.0065	.0059	.0076	.0080	.0091	.0086
35 .....	.0280	.0316	.0336	.3613	.6198	.7506	.5493	.5442	.6691	.5189	.5357	.5247	.5038	.7191	.7825	.7851
36 .....	.0133	.0125	.0178	.0124	.0195	.0209	.0174	.0207	.0218	.0143	.0197	.0185	.0216	.0188	.0217	.0214
37 .....	.0310	.0253	.0446	.0271	.0411	.0476	.0375	.0379	.0457	.0332	.0374	.0354	.0365	.0464	.0502	.0494
38 .....	.0165	.0160	.0228	.0156	.0229	.0233	.0193	.0219	.0230	.0159	.0197	.0183	.0243	.0250	.0264	.0237
39 .....	.0021	.0017	.0031	.0019	.0028	.0033	.0026	.0026	.0031	.0023	.0026	.0024	.0025	.0032	.0034	.0034
Total .....	.7092	.5793	1.0222	.6214	.9424	1.0908	.8587	.8671	1.0468	.7602	.8559	.8097	.8348	1.0619	1.1495	1.1320

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	74.0000	75.0001	75.0002	75.0003	76.0100	76.0201	76.0202	76.0203	76.0204	76.0205	76.0206	77.0100	77.0200	77.0301	77.0302	77.0401
1	0.0100	0.0029	0.0027	0.0037	0.0037	0.0035	0.0044	0.0224	0.0059	0.0415	0.0106	0.0046	0.0058	0.0057	0.0049	0.0078
2 .....	.0014	.0001	.0001	.0001	.0001	.0001	.0001	.0002	0	.0002	.0001	.0001	.0002	.0002	.0001	.0001
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0021	.0044	.0018	.0022	.0020	.0017	.0024	.0033	.0009	.0035	.0017	.0025	.0029	.0029	.0031	.0027
5 .....	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	0	.0002	.0001	.0001	.0002	.0001	.0002	.0003
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0098	.0087	.0078	.0143	.0103	.0104	.0224	.0208	.0073	.0268	.0132	.0106	.0215	.0339	.0113	.1063
8 .....	.0267	.0051	.0049	.0060	.0087	.0060	.0063	.0130	.0038	.0093	.0059	.0082	.0096	.0096	.0081	.0083
9 .....	.0002	.0002	.0002	.0003	.0003	.0003	.0003	.0004	.0001	.0004	.0002	.0003	.0004	.0004	.0003	.0004
10 .....	.0037	.0037	.0034	.0042	.0039	.0062	.0042	.0072	.0017	.0068	.0033	.0056	.0060	.0051	.0055	.0045
11 .....	.0033	.0013	.0012	.0013	.0016	.0015	.0016	.0023	.0007	.0025	.0013	.0020	.0023	.0017	.0019	.0034
12 .....	.0080	.0068	.0050	.0057	.0190	.0108	.0101	.0121	.0057	.0171	.0070	.0071	.0084	.0064	.0072	.0110
13 .....	.0033	.0052	.0047	.0032	.0033	.0031	.0036	.0054	.0015	.0055	.0028	.0049	.0099	.0072	.0113	.0055
14 .....	.0030	.0019	.0014	.0014	.0014	.0014	.0017	.0024	.0014	.0027	.0028	.0022	.0064	.0031	.0054	.0030
15 .....	.0015	.0013	.0012	.0014	.0020	.0020	.0015	.0024	.0006	.0022	.0012	.0018	.0019	.0019	.0019	.0028
16 .....	.0021	.0015	.0023	.0010	.0009	.0008	.0011	.0017	.0005	.0015	.0009	.0011	.0017	.0021	.0017	.0036
17 .....	.0006	.0015	.0013	.0006	.0004	.0004	.0005	.0007	.0002	.0007	.0005	.0005	.0006	.0006	.0006	.0011
18 .....	.0027	.0087	.0098	.0024	.0017	.0018	.0023	.0032	.0011	.0033	.0021	.0022	.0029	.0030	.0024	.0058
19 .....	.0033	.0280	.0030	.0014	.0012	.0015	.0023	.0018	.0006	.0025	.0015	.0013	.0015	.0014	.0015	.0023
20 .....	.0025	.0035	.0041	.0072	.0025	.0036	.0039	.0042	.0013	.0048	.0024	.0035	.0041	.0033	.0034	.0075
21 .....	.0003	.0009	.0072	.0004	.0003	.0004	.0003	.0006	.0002	.0005	.0003	.0005	.0005	.0004	.0005	.0004
22 .....	.0008	.0008	.0009	.0005	.0005	.0005	.0005	.0009	.0002	.0012	.0015	.0006	.0006	.0006	.0007	.0006
23 .....	.0007	.0008	.0009	.0009	.0018	.0010	.0010	.0014	.0004	.0016	.0007	.0035	.0039	.0021	.0086	.0015
24 .....	.0012	.0010	.0009	.0012	.0014	.0012	.0021	.0026	.0007	.0032	.0015	.0014	.0014	.0012	.0014	.0019
25 .....	.0213	.0214	.0148	.0177	.0228	.0195	.0230	.0335	.0093	.0351	.0163	.0235	.0188	.0186	.0250	.0221
26 .....	.0098	.0113	.0085	.0093	.0170	.0157	.0133	.0177	.0063	.0193	.0092	.0136	.0115	.0100	.0134	.0117
27 .....	.0036	.0029	.0026	.0035	.0028	.0027	.0058	.0050	.0016	.0066	.0031	.0034	.0043	.0046	.0037	.0035
28 .....	.0427	.0316	.0318	.0209	.0205	.0205	.0217	.0347	.0105	.0340	.0189	.0265	.0346	.0278	.0375	.0333
29 .....	.0340	.0364	.0688	.0375	.0330	.0369	.0379	.0687	.0166	.0566	.0305	.0524	.0499	.0448	.0515	.0436
30 .....	.0208	.0166	.0115	.0159	.0162	.0155	.0196	.0286	.0102	.0259	.0132	.0179	.0166	.0159	.0190	.0179
31 .....	.0095	.0119	.0083	.0103	.0093	.0099	.0106	.0187	.0047	.0158	.0086	.0137	.0137	.0122	.0137	.0134
32 .....	.0041	.0035	.0030	.0072	.0042	.0042	.0069	.0076	.0028	.0095	.0070	.0056	.0093	.0054	.0056	.0095
33 .....	.0075	.0055	.0048	.0060	.3370	.3186	.3444	.8245	.1637	.5240	.3156	.0077	.0073	.0065	.0081	.0081
34 .....	.0066	.0062	.0143	.0072	.0051	.0061	.0132	.0111	.0031	.0138	.0064	.0074	.0085	.0080	.0075	.0070
35 .....	.0487	.0386	.0279	.0650	.0503	.1443	.1010	.0735	.0294	.1072	.0465	.0467	.0471	.0391	.0476	.0593
36 .....	.3268	.0135	.0123	.0183	.0156	.0164	.0198	.0269	.0074	.0285	.0136	.0179	.0194	.0171	.0187	.0191
37 .....	.0293	.0274	.0264	.0311	.0283	.0317	.0324	.0590	.0141	.0477	.0259	.7123	.6243	.5521	.6618	.0363
38 .....	.0134	.3113	.3032	.4003	.0162	.0243	.0180	.0283	.0079	.0276	.0141	.0218	.0206	.0191	.0217	.3635
39 .....	.0020	.0019	.0018	.0021	.0019	.0022	.0022	.0040	.0010	.0033	.0018	.0031	.0029	.0026	.0031	.0025
Total .....	.6694	.6284	.6054	.7115	.6476	.7271	.7428	1.3510	.3235	1.0929	.5920	1.0383	.9816	.8766	1.0200	.8315

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-1.2.—39-Industry-by-528-Industry Multipliers for Earnings—Continued

[Dollars]

	77.0402	77.0403	77.0501	77.0502	77.0503	77.0504	77.0600	77.0700	77.0800	77.0900	78.0100	78.0200	78.0300	78.0400	79.0000	91.0000
1	0.0067	0.0102	0.0040	0.0049	0.0061	0.0051	0.0057	0.0065	0.0111	0.0060	0.0048	0	0	0.0057	0.0042	0.0058
2 .....	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0004	.0002	.0001	0	0	.0008	.0001	.0002
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0025	.0042	.0030	.0027	.0029	.0034	.0023	.0019	.0030	.0030	.0029	0	0	.0014	.0124	.0028
5 .....	.0002	.0001	.0001	.0001	.0002	.0001	.0001	.0001	.0001	.0003	.0001	0	0	.0001	.0002	.0001
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0485	.0191	.0157	.0401	.0517	.0202	.0166	.0073	.0189	.0355	.0115	0	0	.0050	.0420	.0106
8 .....	.0076	.0074	.0067	.0072	.0075	.0067	.0076	.0097	.0222	.0113	.0088	0	0	.0133	.0047	.0110
9 .....	.0003	.0003	.0003	.0003	.0004	.0003	.0010	.0002	.0004	.0003	.0004	0	0	.0002	.0003	.0004
10 .....	.0051	.0048	.0044	.0048	.0054	.0044	.0051	.0026	.0066	.0048	.0063	0	0	.0030	.0032	.0076
11 .....	.0022	.0028	.0037	.0040	.0024	.0052	.0028	.0018	.0022	.0026	.0016	0	0	.0014	.0011	.0018
12 .....	.0107	.0262	.0702	.0341	.0076	.0618	.0091	.0106	.0070	.0305	.0075	0	0	.0047	.0048	.0070
13 .....	.0047	.0055	.0048	.0047	.0046	.0056	.0049	.0026	.0060	.0048	.0044	0	0	.0022	.0062	.0049
14 .....	.0022	.0026	.0026	.0023	.0020	.0024	.0061	.0040	.0034	.0031	.0018	0	0	.0013	.0016	.0020
15 .....	.0021	.0018	.0016	.0021	.0022	.0017	.0098	.0012	.0018	.0019	.0019	0	0	.0010	.0012	.0023
16 .....	.0019	.0016	.0011	.0015	.0018	.0012	.0012	.0007	.0014	.0018	.0011	0	0	.0009	.0013	.0013
17 .....	.0007	.0007	.0005	.0007	.0007	.0006	.0017	.0003	.0005	.0007	.0005	0	0	.0004	.0010	.0005
18 .....	.0035	.0028	.0024	.0032	.0035	.0027	.0158	.0016	.0027	.0030	.0022	0	0	.0024	.0032	.0024
19 .....	.0022	.0020	.0016	.0018	.0015	.0028	.0019	.0008	.0013	.0015	.0015	0	0	.0011	.0023	.0013
20 .....	.0051	.0098	.0031	.0037	.0036	.0035	.0034	.0033	.0032	.0042	.0030	0	0	.0018	.0073	.0034
21 .....	.0005	.0005	.0004	.0004	.0005	.0004	.0004	.0002	.0004	.0004	.0008	0	0	.0003	.0005	.0006
22 .....	.0007	.0007	.0010	.0006	.0006	.0007	.0006	.0003	.0006	.0006	.0009	0	0	.0005	.0007	.0008
23 .....	.0018	.0014	.0014	.0014	.0014	.0014	.0011	.0009	.0010	.0013	.0010	0	0	.0007	.0008	.0012
24 .....	.0016	.0017	.0021	.0019	.0025	.0015	.0027	.0016	.0022	.0022	.0015	0	0	.0008	.0008	.0017
25 .....	.0259	.0244	.0474	.0479	.0222	.0435	.0221	.0149	.0208	.0340	.7711	0	0	.0156	.0205	.0203
26 .....	.0128	.0241	.0127	.0126	.0130	.0163	.0125	.0130	.0142	.0269	.0106	0	0	.0066	.0064	.0117
27 .....	.0034	.0042	.0039	.0044	.0036	.0038	.0039	.0028	.0054	.0047	.0037	0	0	.0024	.0207	.0042
28 .....	.0284	.0387	.0301	.0280	.0269	.0308	.0359	.0231	.0369	.0308	.0260	0	0	.0229	.0430	.0298
29 .....	.0484	.0460	.0410	.0424	.0479	.0392	.0479	.0247	.0433	.0450	.0565	0	0	.0277	.0310	.0712
30 .....	.0192	.0307	.0172	.0163	.0174	.0198	.0245	.0123	.0155	.0300	.0169	0	0	.0105	.0118	.0204
31 .....	.0143	.0144	.0116	.0124	.0175	.0138	.0144	.0068	.0119	.0124	.0150	0	0	.0073	.0093	.0183
32 .....	.0105	.0079	.0043	.0082	.0128	.0062	.0065	.0039	.0064	.0057	.0044	0	0	.0020	.0026	.0046
33 .....	.0078	.0142	.0077	.0137	.0116	.0166	.0094	.0065	.0077	.0138	.0077	0	0	.0056	.0046	.0094
34 .....	.0077	.0069	.0074	.0069	.0074	.0082	.0081	.0041	.0070	.0073	.0080	0	0	.0040	.0045	.0098
35 .....	.0520	.0792	.0527	.0663	.0399	.0630	.0599	.0319	.0639	.0672	.0351	0	0	.0267	.0321	.0349
36 .....	.0185	.0188	.0180	.0222	.0178	.0188	.0183	.0104	.0169	.0206	.0190	0	0	.0129	.0110	.0228
37 .....	.0410	.0392	.0352	.0361	.0405	.0331	.0414	.0213	.0374	.0387	.0487	0	0	.0240	.0258	.0620
38 .....	.5361	.4405	.3845	.3838	.5380	.3111	.5395	.2513	.4676	.4252	.0252	0	0	.3302	.2657	.0276
39 .....	.0028	.0027	.0024	.0025	.0028	.0023	.0028	.0015	.0026	.0026	.0033	0	0	.0016	.0018	.0043
Total .....	.9399	.8984	.8067	.8267	.9284	.7581	.9474	.4871	.8539	.8850	1.1158	0	0	.5486	.5904	.4209

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix II identifies the column industries, and Appendix III identifies the row industries.

California

Table A-2.1.—39-Industry-by-39-Industry Multipliers for Output

[Dollars]

	1	2	3	4	5	6	7	8	9	10	11	12	13
1	1.1407	0.0677	0.0082	0.0052	0.0099	0.0134	0.0166	0.1617	0.0243	0.0100	0.0074	0.0107	0.0050
2 .....	.0007	1.0029	.0004	.0002	.0004	.0009	.0007	.0055	.0003	.0007	.0005	.0005	.0002
3	0	0	1.0000	0	0	0	0	0	0	0	0	0	0
4 .....	.0445	.0527	.0245	1.0273	.0438	.0379	.0438	.0277	.0252	.0199	.0339	.0285	.3256
5 .....	.0008	.0006	.0013	.0003	1.0134	.0045	.0057	.0017	.0004	.0003	.0009	.0004	.0022
6	0	0	0	0	0	1.0002	0	0	0	0	0	0	0
7 .....	.0255	.0207	.0219	.0433	.0288	.0209	1.0211	.0173	.0131	.0144	.0147	.0182	.0218
8 .....	.0557	.0479	.0287	.0140	.0339	.0455	.0496	1.1364	.0249	.0334	.0262	.0386	.0160
9 .....	.0017	.0067	.0010	.0005	.0011	.0047	.0040	.0011	1.0429	.0405	.0019	.0014	.0005
10 .....	.0149	.0141	.0100	.0047	.0116	.0156	.0177	.0101	.0139	1.1484	.0088	.0126	.0051
11 .....	.0157	.0057	.0041	.0022	.0053	.0096	.0095	.0280	.0106	.0090	1.0773	.0391	.0054
12 .....	.0140	.0137	.0109	.0091	.0139	.0200	.0191	.0366	.0154	.0224	.0130	1.0717	.0099
13 .....	.1268	.1599	.0629	.0264	.0897	.1020	.1222	.0655	.0612	.0484	.0826	.0748	1.1118
14 .....	.0057	.0053	.0070	.0022	.0068	.0119	.0170	.0164	.0212	.0096	.0151	.0120	.0056
15 .....	.0158	.0049	.0054	.0023	.0056	.0548	.0259	.0062	.0034	.0042	.0234	.0050	.0024
16 .....	.0037	.0033	.0047	.0024	.0036	.0554	.0374	.0333	.0025	.0024	.0024	.0029	.0037
17 .....	.0019	.0047	.0039	.0014	.0072	.0200	.0148	.0057	.0012	.0013	.0030	.0025	.0017
18 .....	.0086	.0134	.0161	.0085	.0197	.0652	.0626	.0572	.0045	.0053	.0111	.0075	.0095
19 .....	.0053	.0083	.0297	.0049	.0238	.0164	.0134	.0054	.0046	.0035	.0053	.0059	.0039
20 .....	.0071	.0136	.0101	.0053	.0110	.0381	.0343	.0065	.0053	.0066	.0054	.0083	.0042
21 .....	.0022	.0019	.0017	.0008	.0022	.0026	.0028	.0016	.0013	.0018	.0015	.0021	.0008
22 .....	.0022	.1126	.0019	.0008	.0026	.0031	.0031	.0025	.0015	.0018	.0018	.0023	.0012
23 .....	.0021	.0046	.0019	.0011	.0025	.0053	.0057	.0023	.0022	.0030	.0023	.0074	.0014
24 .....	.0037	.0033	.0030	.0016	.0039	.0052	.0054	.0036	.0037	.0075	.0028	.0055	.0017
25 .....	.0513	.0448	.0296	.0154	.0437	.0597	.0606	.0637	.0390	.0384	.0598	.0697	.0487
26 .....	.0223	.0202	.0184	.0118	.0244	.0339	.0343	.0295	.0201	.0298	.0202	.0389	.0134
27 .....	.0410	.0293	.0356	.0229	.1001	.0461	.0471	.0484	.0426	.0338	.0551	.0382	.0488
28 .....	.0849	.0666	.0600	.0206	.0611	.1003	.0999	.1114	.0702	.0774	.0660	.0758	.0484
29 .....	.0618	.0523	.0512	.0258	.0599	.1266	.1349	.0493	.0416	.0571	.0449	.0647	.0265
30 .....	.0366	.0291	.0271	.0153	.0435	.0374	.0400	.0285	.0220	.0337	.0213	.0337	.0200
31 .....	.0214	.0328	.0164	.0101	.0196	.0257	.0269	.0166	.0134	.0181	.0148	.0208	.0098
32 .....	.1393	.0935	.1140	.2126	.1381	.1405	.1491	.0920	.0745	.1018	.0801	.1217	.1004
33 .....	.0218	.0176	.0138	.0075	.0249	.0238	.0242	.0169	.0123	.0173	.0143	.0230	.0082
34 .....	.0119	.0080	.0074	.0037	.0096	.0121	.0129	.0086	.0126	.0121	.0077	.0103	.0044
35 .....	.0535	.0757	.0471	.0362	.0670	.1607	.0779	.0612	.0463	.0539	.0436	.0847	.0467
36 .....	.0338	.0311	.0280	.0155	.0348	.0484	.0496	.0308	.0264	.0377	.0275	.0477	.0166
37 .....	.0430	.0352	.0351	.0166	.0407	.0544	.0602	.0340	.0288	.0396	.0307	.0445	.0177
38 .....	.0432	.0390	.0319	.0149	.0429	.0527	.0526	.0308	.0251	.0347	.0284	.0416	.0167
39 .....	.5702	.4871	.4862	.2296	.5646	.7531	.8335	.4670	.3980	.5480	.4251	.6162	.2453
Total ¹	2.1651	2.1434	1.7751	1.5933	2.0508	2.4756	2.4028	2.2539	1.7585	1.9798	1.8556	2.0732	1.9657

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.—Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix III identifies the row and column industries.

California

Table A-2.1.—39-Industry-by-39-Industry Multipliers for Output—Continued

[Dollars]

	14	15	16	17	18	19	20	21	22	23	24	25	26
1	0.0088	0.0130	0.0105	0.0087	0.0100	0.0119	0.0129	0.0073	0.0122	0.0116	0.0113	0.0139	0.0101
2 .....	.0004	.0078	.0005	.0004	.0005	.0005	.0006	.0003	.0006	.0005	.0006	.0006	.0004
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0420	.0315	.0487	.0338	.0287	.0255	.0284	.0198	.0248	.0279	.0310	.0657	.0182
5 .....	.0009	.0006	.0457	.0068	.0012	.0007	.0009	.0007	.0007	.0011	.0009	.0007	.0004
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0177	.0233	.0258	.0248	.0293	.0233	.0236	.0167	.0247	.0201	.0220	.0387	.0458
8 .....	.0317	.0381	.0367	.0309	.0357	.0426	.0462	.0259	.0439	.0420	.0376	.0493	.0351
9 .....	.0032	.0083	.0012	.0010	.0011	.0017	.0015	.0028	.0024	.0029	.0064	.0016	.0011
10 .....	.0106	.0140	.0125	.0105	.0121	.0143	.0159	.0201	.0176	.0140	.0178	.0169	.0120
11 .....	.0186	.0129	.0285	.0061	.0103	.0119	.0117	.0060	.0076	.0153	.0273	.0071	.0053
12 .....	.0149	.0219	.0236	.0177	.0219	.0223	.0277	.0179	.0280	.0250	.0398	.0225	.0183
13 .....	.1106	.0802	.0982	.0700	.0689	.0614	.0691	.0480	.0598	.0696	.0812	.1887	.0438
14	1.0357	.0194	.0085	.0097	.0113	.0194	.0298	.0215	.0148	.0314	.0325	.0066	.0060
15 .....	.0070	1.1641	.0095	.0061	.0073	.0065	.0095	.0053	.0123	.0068	.0263	.0059	.0047
16 .....	.0068	.0057	1.0995	.0056	.0065	.0060	.0077	.0069	.0058	.0087	.0064	.0043	.0036
17 .....	.0040	.0158	.0050	1.0844	.0862	.0319	.0265	.0343	.0284	.0194	.0268	.0033	.0028
18 .....	.0152	.0402	.0134	.0178	1.0701	.0348	.0419	.0297	.0306	.0345	.0230	.0113	.0098
19 .....	.0096	.0096	.0103	.0170	.0146	1.1368	.0217	.0267	.0259	.0151	.0158	.0105	.0041
20 .....	.0090	.0090	.0087	.0107	.0125	.0884	1.1771	.0197	.0815	.0742	.0353	.0119	.0482
21 .....	.0017	.0021	.0020	.0018	.0020	.0025	.0025	1.0357	.0030	.0023	.0020	.0029	.0018
22 .....	.0019	.0030	.0028	.0021	.0023	.0032	.0033	.0040	1.1412	.0025	.0024	.0165	.0019
23 .....	.0028	.0030	.0031	.0025	.0030	.0047	.0064	.0047	.0221	1.0286	.0039	.0032	.0030
24 .....	.0039	.0044	.0042	.0034	.0040	.0050	.0057	.0032	.0052	.0050	1.0307	.0053	.0041
25 .....	.0480	.0553	.1028	.0623	.0483	.0514	.0511	.0418	.0508	.0448	.0519	1.1710	.0326
26 .....	.0310	.0300	.0337	.0299	.0428	.0371	.0436	.0229	.0381	.0378	.0375	.0409	1.0389
27 .....	.0484	.0467	.1133	.0765	.0500	.0444	.0490	.0333	.0437	.0440	.0424	.0461	.0327
28 .....	.0876	.1033	.0758	.1008	.1026	.1288	.1222	.1104	.0852	.0970	.1196	.0691	.0435
29 .....	.0532	.0649	.0640	.0542	.0623	.0732	.0800	.0459	.0762	.0710	.0608	.0862	.0609
30 .....	.0268	.0369	.0348	.0270	.0312	.0403	.0414	.0219	.0429	.0364	.0366	.0496	.0353
31 .....	.0169	.0207	.0207	.0174	.0195	.0229	.0247	.0145	.0234	.0224	.0196	.0293	.0182
32 .....	.0978	.1144	.1143	.0948	.1082	.1297	.1386	.0770	.1307	.1240	.1108	.1578	.1195
33 .....	.0164	.0191	.0192	.0163	.0213	.0288	.0264	.0140	.0312	.0234	.0201	.0240	.0777
34 .....	.0091	.0102	.0106	.0093	.0100	.0117	.0149	.0077	.0116	.0111	.0103	.0134	.0118
35 .....	.0545	.0733	.0658	.0627	.0628	.0789	.0811	.0462	.0836	.0887	.0793	.0851	.0608
36 .....	.0333	.0413	.0392	.0324	.0381	.0475	.0487	.0276	.0459	.0454	.0475	.0558	.0376
37 .....	.0367	.0444	.0437	.0370	.0426	.0505	.0555	.0308	.0527	.0490	.0416	.0566	.0413
38 .....	.0328	.0424	.0393	.0322	.0375	.0432	.0458	.0370	.0431	.0477	.0417	.0582	.0348
39 .....	.5079	.6149	.6050	.5128	.5904	.7001	.7695	.4267	.7307	.6787	.5758	.7846	.5728
Total ¹	1.9497	2.2309	2.2761	2.0247	2.1166	2.3437	2.3937	1.8880	2.3522	2.2013	2.2007	2.4307	1.9262

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.—Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix III identifies the row and column industries.

California

Table A-2.1.—39-Industry-by-39-Industry Multipliers for Output—Continued

[Dollars]

	27	28	29	30	31	32	33	34	35	36	37	38	39
1	0.0052	0.0129	0.0160	0.0164	0.0185	0.0104	0.0187	0.0142	0.0159	0.0468	0.0188	0.0157	0.0224
2 .....	.0002	.0006	.0007	.0008	.0009	.0002	.0006	.0006	.0007	.0053	.0008	.0007	.0010
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.2569	.0269	.0338	.0292	.0293	.0067	.0251	.0311	.0280	.0253	.0364	.0418	.0334
5 .....	.0004	.0004	.0005	.0005	.0005	.0004	.0005	.0005	.0004	.0006	.0007	.0007	.0005
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0420	.0218	.0316	.0331	.0300	.0604	.0323	.0250	.0245	.0225	.0367	.0658	.0249
8 .....	.0168	.0456	.0570	.0584	.0670	.0103	.0513	.0501	.0570	.2090	.0657	.0510	.0819
9 .....	.0006	.0013	.0016	.0017	.0018	.0004	.0016	.0026	.0016	.0013	.0019	.0015	.0023
10 .....	.0057	.0151	.0179	.0193	.0211	.0031	.0166	.0237	.0192	.0139	.0216	.0153	.0285
11 .....	.0029	.0115	.0159	.0101	.0100	.0021	.0078	.0093	.0093	.0160	.0098	.0102	.0089
12 .....	.0078	.0281	.0428	.0408	.0405	.0079	.0426	.0266	.0306	.0260	.0248	.0452	.0231
13 .....	.0459	.0661	.0805	.0722	.0723	.0179	.0565	.0753	.0699	.0573	.0936	.0905	.0820
14 .....	.0037	.0060	.0068	.0066	.0069	.0022	.0083	.0119	.0086	.0120	.0173	.0076	.0074
15 .....	.0034	.0075	.0063	.0064	.0070	.0023	.0065	.0062	.0064	.0056	.0071	.0065	.0089
16 .....	.0030	.0037	.0040	.0042	.0043	.0027	.0046	.0057	.0039	.0089	.0055	.0066	.0048
17 .....	.0015	.0017	.0020	.0021	.0021	.0011	.0019	.0032	.0023	.0024	.0023	.0036	.0021
18 .....	.0069	.0081	.0092	.0089	.0092	.0048	.0078	.0105	.0093	.0147	.0101	.0192	.0100
19 .....	.0052	.0046	.0052	.0066	.0064	.0016	.0043	.0163	.0116	.0093	.0045	.0103	.0043
20 .....	.0055	.0089	.0111	.0129	.0129	.0036	.0100	.0432	.0178	.0091	.0133	.0168	.0127
21 .....	.0014	.0024	.0029	.0031	.0033	.0005	.0021	.0027	.0030	.0022	.0031	.0103	.0043
22 .....	.0014	.0022	.0027	.0034	.0033	.0006	.0031	.0025	.0033	.0028	.0029	.0029	.0037
23 .....	.0032	.0028	.0034	.0050	.0049	.0008	.0046	.0057	.0051	.0025	.0146	.0039	.0041
24 .....	.0018	.0050	.0066	.0072	.0076	.0012	.0061	.0094	.0068	.0051	.0061	.0061	.0075
25 .....	.0285	.0445	.0539	.0887	.0692	.0129	.0472	.0465	.0548	.0513	.0508	.0564	.0511
26 .....	.0123	.0438	.0551	.0616	.0733	.0110	.0512	.0399	.0499	.0329	.0413	.0380	.0391
27	1.5202	.0431	.0598	.0473	.0486	.0084	.0502	.0533	.0452	.0502	.0544	.0848	.0583
28 .....	.0253	1.0617	.0583	.0604	.0636	.0139	.0508	.0775	.0627	.1061	.0751	.0776	.0726
29 .....	.0309	.0768	1.0932	.0967	.1076	.0188	.0693	.0870	.0983	.0702	.1035	.0980	.1456
30 .....	.0226	.0402	.0472	1.1768	.1116	.0196	.0402	.0420	.0458	.0504	.0411	.0372	.0490
31 .....	.0162	.0233	.0292	.0392	1.4033	.0217	.0217	.0264	.0303	.0218	.0311	.0263	.0419
32 .....	.0933	.1452	.2096	.1975	.2187	1.1015	.1673	.1701	.1879	.1478	.2357	.1857	.2267
33 .....	.0087	.0298	.0295	.0327	.0440	.0069	1.2546	.0249	.0363	.0278	.0284	.0295	.0354
34 .....	.0060	.0137	.0190	.0153	.0169	.0032	.0146	1.0305	.0152	.0145	.0165	.0178	.0200
35 .....	.0343	.0958	.1247	.1937	.1215	.0331	.1234	.0992	1.1759	.0944	.0881	.0825	.0662
36 .....	.0179	.0566	.0730	.0758	.0947	.0166	.0472	.0531	.0606	1.0445	.0586	.0482	.0730
37 .....	.0201	.0525	.0631	.0666	.0747	.0108	.0473	.0601	.0682	.0486	1.0905	.0519	.1025
38 .....	.0179	.0528	.0630	.0746	.0616	.0105	.0462	.0562	.0602	.0421	.0570	1.0481	.0742
39 .....	.2790	.7276	.8743	.9230	1.0354	.1490	.6555	.8323	.9448	.6722	.9937	.7189	1.4200
Total ¹	2.2757	2.0632	2.3373	2.5757	2.8692	1.4301	2.3442	2.2431	2.3268	2.3012	2.3697	2.3142	1.4345

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.—Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix III identifies the row and column industries.

California

Table A-2.2.—39-Industry-by-39-Industry Multipliers for Earnings

[Dollars]

	1	2	3	4	5	6	7	8	9	10	11	12	13
1	0.2980	0.0177	0.0021	0.0014	0.0026	0.0035	0.0043	0.0422	0.0064	0.0026	0.0019	0.0028	0.0013
2 .....	.0001	.1753	.0001	0	.0001	.0002	.0001	.0010	.0001	.0001	.0001	.0001	0
3	0	0	.2690	0	0	0	0	0	0	0	0	0	0
4 .....	.0044	.0052	.0024	.1010	.0043	.0037	.0043	.0027	.0025	.0020	.0033	.0028	.0320
5 .....	.0002	.0002	.0004	.0001	.2886	.0013	.0016	.0005	.0001	.0001	.0003	.0001	.0006
6	0	0	0	0	0	.3000	0	0	0	0	0	0	0
7 .....	.0108	.0088	.0093	.0184	.0122	.0089	.4339	.0073	.0056	.0061	.0062	.0077	.0092
8 .....	.0069	.0060	.0036	.0017	.0042	.0057	.0062	.1417	.0031	.0042	.0033	.0048	.0020
9 .....	.0003	.0012	.0002	.0001	.0002	.0009	.0007	.0002	.1936	.0075	.0004	.0003	.0001
10 .....	.0039	.0037	.0026	.0012	.0031	.0041	.0047	.0027	.0037	.3032	.0023	.0033	.0013
11 .....	.0031	.0011	.0008	.0004	.0010	.0019	.0019	.0055	.0021	.0018	.2111	.0077	.0011
12 .....	.0042	.0041	.0033	.0027	.0042	.0060	.0057	.0110	.0046	.0067	.0039	.3215	.0030
13 .....	.0067	.0085	.0033	.0014	.0048	.0054	.0065	.0035	.0032	.0026	.0044	.0040	.0589
14 .....	.0014	.0013	.0018	.0006	.0017	.0030	.0042	.0041	.0053	.0024	.0038	.0030	.0014
15 .....	.0041	.0013	.0014	.0006	.0015	.0143	.0068	.0016	.0009	.0011	.0061	.0013	.0006
16 .....	.0010	.0009	.0012	.0006	.0009	.0143	.0096	.0086	.0006	.0006	.0006	.0007	.0009
17 .....	.0004	.0010	.0009	.0003	.0016	.0044	.0033	.0013	.0003	.0003	.0007	.0006	.0004
18 .....	.0023	.0036	.0043	.0023	.0053	.0175	.0168	.0153	.0012	.0014	.0030	.0020	.0026
19 .....	.0015	.0024	.0087	.0014	.0070	.0048	.0039	.0016	.0014	.0010	.0016	.0017	.0012
20 .....	.0025	.0047	.0035	.0018	.0038	.0132	.0119	.0022	.0018	.0023	.0019	.0029	.0015
21 .....	.0004	.0003	.0003	.0001	.0004	.0004	.0005	.0003	.0002	.0003	.0002	.0003	.0001
22 .....	.0007	.0359	.0006	.0003	.0008	.0010	.0010	.0008	.0005	.0006	.0006	.0007	.0004
23 .....	.0007	.0015	.0006	.0003	.0008	.0017	.0018	.0007	.0007	.0009	.0007	.0024	.0004
24 .....	.0008	.0007	.0007	.0004	.0009	.0012	.0012	.0008	.0008	.0017	.0006	.0012	.0004
25 .....	.0197	.0172	.0114	.0059	.0168	.0229	.0233	.0245	.0150	.0147	.0230	.0268	.0187
26 .....	.0066	.0060	.0054	.0035	.0072	.0100	.0101	.0087	.0059	.0088	.0060	.0115	.0040
27 .....	.0029	.0021	.0025	.0016	.0071	.0033	.0033	.0034	.0030	.0024	.0039	.0027	.0035
28 .....	.0349	.0274	.0247	.0085	.0251	.0413	.0411	.0459	.0289	.0319	.0272	.0312	.0199
29 .....	.0301	.0255	.0249	.0125	.0292	.0616	.0657	.0240	.0203	.0278	.0218	.0315	.0129
30 .....	.0153	.0121	.0113	.0064	.0181	.0156	.0167	.0119	.0092	.0141	.0089	.0141	.0083
31 .....	.0091	.0140	.0070	.0043	.0084	.0109	.0115	.0071	.0057	.0077	.0063	.0089	.0042
32 .....	.0038	.0026	.0031	.0058	.0038	.0038	.0041	.0025	.0020	.0028	.0022	.0033	.0027
33 .....	.0058	.0047	.0037	.0020	.0066	.0063	.0064	.0045	.0033	.0046	.0038	.0061	.0022
34 .....	.0055	.0037	.0034	.0017	.0044	.0056	.0060	.0040	.0058	.0056	.0036	.0048	.0020
35 .....	.0286	.0404	.0251	.0193	.0358	.0857	.0416	.0326	.0247	.0287	.0232	.0452	.0249
36 .....	.0106	.0097	.0088	.0049	.0109	.0152	.0155	.0096	.0083	.0118	.0086	.0149	.0052
37 .....	.0260	.0213	.0212	.0100	.0246	.0329	.0364	.0205	.0174	.0239	.0186	.0269	.0107
38 .....	.0151	.0137	.0112	.0052	.0150	.0184	.0184	.0108	.0088	.0122	.0099	.0146	.0058
39 .....	.0017	.0015	.0015	.0007	.0017	.0023	.0025	.0014	.0012	.0016	.0013	.0018	.0007
Total .....	.5702	.4871	.4862	.2296	.5646	.7531	.8335	.4670	.3980	.5480	.4251	.6162	.2453

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix III identifies the row and column industries.

California

Table A-2.2.—39-Industry-by-39-Industry Multipliers for Earnings—Continued

[Dollars]

	14	15	16	17	18	19	20	21	22	23	24	25	26
1	0.0023	0.0034	0.0027	0.0023	0.0026	0.0031	0.0034	0.0019	0.0032	0.0030	0.0030	0.0036	0.0026
2 .....	.0001	.0014	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0041	.0031	.0048	.0033	.0028	.0025	.0028	.0019	.0024	.0027	.0030	.0065	.0018
5 .....	.0002	.0002	.0130	.0019	.0003	.0002	.0002	.0002	.0002	.0003	.0003	.0002	.0001
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0075	.0099	.0110	.0105	.0125	.0099	.0100	.0071	.0105	.0086	.0094	.0164	.0195
8 .....	.0040	.0047	.0046	.0039	.0045	.0053	.0058	.0032	.0055	.0052	.0047	.0062	.0044
9 .....	.0006	.0015	.0002	.0002	.0002	.0003	.0003	.0005	.0005	.0005	.0012	.0003	.0002
10 .....	.0028	.0037	.0033	.0028	.0032	.0038	.0042	.0053	.0046	.0037	.0047	.0045	.0032
11 .....	.0036	.0025	.0056	.0012	.0020	.0023	.0023	.0012	.0015	.0030	.0053	.0014	.0010
12 .....	.0045	.0066	.0071	.0053	.0066	.0067	.0083	.0054	.0084	.0075	.0119	.0068	.0055
13 .....	.0059	.0043	.0052	.0037	.0037	.0033	.0037	.0025	.0032	.0037	.0043	.0100	.0023
14 .....	.2579	.0048	.0021	.0024	.0028	.0048	.0074	.0053	.0037	.0078	.0081	.0016	.0015
15 .....	.0018	.3036	.0025	.0016	.0019	.0017	.0025	.0014	.0032	.0018	.0069	.0015	.0012
16 .....	.0018	.0015	.2833	.0014	.0017	.0015	.0020	.0018	.0015	.0022	.0017	.0011	.0009
17 .....	.0009	.0035	.0011	.2415	.0192	.0071	.0059	.0076	.0063	.0043	.0060	.0007	.0006
18 .....	.0041	.0108	.0036	.0048	.2870	.0093	.0112	.0080	.0082	.0093	.0062	.0030	.0026
19 .....	.0028	.0028	.0030	.0050	.0043	.3331	.0064	.0078	.0076	.0044	.0046	.0031	.0012
20 .....	.0031	.0031	.0030	.0037	.0043	.0306	.4071	.0068	.0282	.0257	.0122	.0041	.0167
21 .....	.0003	.0003	.0003	.0003	.0003	.0004	.0004	.1714	.0005	.0004	.0003	.0005	.0003
22 .....	.0006	.0010	.0009	.0007	.0007	.0010	.0010	.0013	.3639	.0008	.0008	.0052	.0006
23 .....	.0009	.0010	.0010	.0008	.0010	.0015	.0020	.0015	.0070	.3271	.0012	.0010	.0009
24 .....	.0009	.0010	.0010	.0008	.0009	.0011	.0013	.0007	.0012	.0011	.2318	.0012	.0009
25 .....	.0185	.0212	.0395	.0239	.0185	.0198	.0196	.0161	.0195	.0172	.0199	.4498	.0125
26 .....	.0092	.0089	.0100	.0088	.0126	.0110	.0129	.0068	.0113	.0112	.0111	.0121	.3072
27 .....	.0034	.0033	.0080	.0054	.0035	.0031	.0035	.0024	.0031	.0031	.0030	.0033	.0023
28 .....	.0361	.0425	.0312	.0415	.0422	.0530	.0503	.0454	.0351	.0399	.0492	.0284	.0179
29 .....	.0259	.0316	.0312	.0264	.0303	.0356	.0389	.0223	.0371	.0346	.0296	.0420	.0297
30 .....	.0112	.0154	.0145	.0112	.0130	.0168	.0173	.0091	.0179	.0152	.0153	.0207	.0147
31 .....	.0072	.0088	.0088	.0074	.0083	.0098	.0105	.0062	.0100	.0095	.0083	.0125	.0077
32 .....	.0027	.0031	.0031	.0026	.0030	.0035	.0038	.0021	.0036	.0034	.0030	.0043	.0033
33 .....	.0044	.0051	.0051	.0043	.0056	.0077	.0070	.0037	.0083	.0062	.0053	.0064	.0206
34 .....	.0042	.0047	.0049	.0043	.0047	.0054	.0069	.0036	.0054	.0052	.0048	.0062	.0055
35 .....	.0291	.0391	.0351	.0334	.0335	.0421	.0433	.0246	.0446	.0473	.0423	.0454	.0325
36 .....	.0104	.0129	.0123	.0101	.0119	.0149	.0152	.0086	.0144	.0142	.0149	.0175	.0118
37 .....	.0222	.0268	.0264	.0224	.0258	.0306	.0336	.0186	.0319	.0296	.0251	.0342	.0250
38 .....	.0115	.0149	.0138	.0113	.0131	.0151	.0160	.0130	.0151	.0167	.0146	.0204	.0122
39 .....	.0015	.0018	.0018	.0015	.0018	.0021	.0023	.0013	.0022	.0020	.0017	.0023	.0017
Total .....	.5079	.6149	.6050	.5128	.5904	.7001	.7695	.4267	.7307	.6787	.5758	.7846	.5728

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix III identifies the row and column industries.

California

Table A-2.2.—39-Industry-by-39-Industry Multipliers for Earnings—Continued
[Dollars]

	27	28	29	30	31	32	33	34	35	36	37	38	39
1	0.0013	0.0034	0.0042	0.0043	0.0048	0.0027	0.0049	0.0037	0.0042	0.0122	0.0049	0.0041	0.0058
2	0	.0001	.0001	.0001	.0002	0	.0001	.0001	.0001	.0009	.0001	.0001	.0002
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.0253	.0026	.0033	.0029	.0029	.0007	.0025	.0031	.0028	.0025	.0036	.0041	.0033
5 .....	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0002	.0001	.0002	.0002	.0002	.0001
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.0179	.0093	.0134	.0141	.0128	.0257	.0137	.0106	.0104	.0095	.0156	.0280	.0106
8 .....	.0021	.0057	.0071	.0073	.0084	.0013	.0064	.0062	.0071	.0261	.0082	.0064	.0102
9 .....	.0001	.0002	.0003	.0003	.0003	.0001	.0003	.0005	.0003	.0002	.0004	.0003	.0004
10 .....	.0015	.0040	.0047	.0051	.0056	.0008	.0044	.0063	.0051	.0037	.0057	.0040	.0075
11 .....	.0006	.0023	.0031	.0020	.0020	.0004	.0015	.0018	.0018	.0031	.0019	.0020	.0017
12 .....	.0023	.0084	.0128	.0122	.0122	.0024	.0128	.0080	.0092	.0078	.0074	.0135	.0069
13 .....	.0024	.0035	.0043	.0038	.0038	.0009	.0030	.0040	.0037	.0030	.0050	.0048	.0043
14 .....	.0009	.0015	.0017	.0016	.0017	.0006	.0021	.0030	.0021	.0030	.0043	.0019	.0019
15 .....	.0009	.0020	.0017	.0017	.0018	.0006	.0017	.0016	.0017	.0015	.0018	.0017	.0023
16 .....	.0008	.0009	.0010	.0011	.0011	.0007	.0012	.0015	.0010	.0023	.0014	.0017	.0012
17 .....	.0003	.0004	.0005	.0005	.0005	.0002	.0004	.0007	.0005	.0005	.0005	.0008	.0005
18 .....	.0019	.0022	.0025	.0024	.0025	.0013	.0021	.0028	.0025	.0039	.0027	.0051	.0027
19 .....	.0015	.0014	.0015	.0019	.0019	.0005	.0012	.0048	.0034	.0027	.0013	.0030	.0013
20 .....	.0019	.0031	.0038	.0045	.0045	.0012	.0034	.0149	.0062	.0031	.0046	.0058	.0044
21 .....	.0002	.0004	.0005	.0005	.0005	.0001	.0004	.0004	.0005	.0004	.0005	.0017	.0007
22 .....	.0004	.0007	.0009	.0011	.0010	.0002	.0010	.0008	.0010	.0009	.0009	.0009	.0012
23 .....	.0010	.0009	.0011	.0016	.0015	.0003	.0015	.0018	.0016	.0008	.0046	.0012	.0013
24 .....	.0004	.0011	.0015	.0016	.0017	.0003	.0014	.0021	.0015	.0011	.0014	.0014	.0017
25 .....	.0110	.0171	.0207	.0341	.0266	.0049	.0181	.0179	.0211	.0197	.0195	.0217	.0196
26 .....	.0036	.0129	.0163	.0182	.0217	.0033	.0151	.0118	.0148	.0097	.0122	.0112	.0116
27 .....	.1078	.0031	.0042	.0034	.0035	.0006	.0036	.0038	.0032	.0036	.0039	.0060	.0041
28 .....	.0104	.4369	.0240	.0249	.0262	.0057	.0209	.0319	.0258	.0437	.0309	.0319	.0299
29 .....	.0150	.0374	.5323	.0471	.0524	.0091	.0337	.0423	.0479	.0342	.0504	.0477	.0709
30 .....	.0094	.0167	.0197	.4907	.0466	.0082	.0168	.0175	.0191	.0210	.0171	.0155	.0204
31 .....	.0069	.0099	.0124	.0167	.5970	.0092	.0092	.0112	.0129	.0093	.0132	.0112	.0178
32 .....	.0026	.0040	.0057	.0054	.0060	.0301	.0046	.0047	.0051	.0040	.0064	.0051	.0062
33 .....	.0023	.0079	.0078	.0087	.0117	.0018	.3333	.0066	.0096	.0074	.0075	.0078	.0094
34 .....	.0028	.0064	.0088	.0071	.0078	.0015	.0067	.4777	.0070	.0067	.0076	.0082	.0093
35 .....	.0183	.0511	.0665	.1033	.0648	.0176	.0658	.0529	.6273	.0504	.0470	.0440	.0353
36 .....	.0056	.0177	.0228	.0237	.0296	.0052	.0148	.0166	.0190	.3268	.0183	.0151	.0228
37 .....	.0122	.0318	.0382	.0403	.0452	.0065	.0286	.0363	.0412	.0294	.6594	.0314	.0620
38 .....	.0063	.0185	.0221	.0261	.0216	.0037	.0162	.0197	.0211	.0148	.0200	.3670	.0260
39 .....	.0008	.0022	.0026	.0028	.0031	.0004	.0020	.0025	.0028	.0020	.0030	.0022	.0043
Total .....	.2790	.7276	.8743	.9230	1.0354	.1490	.6555	.8323	.9448	.6722	.9937	.7189	.4200

NOTE.—Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix III identifies the row and column industries.

California

Table A-2.3.—39-Industry-by-39-Industry Multipliers for Employment

[Number of jobs]

	1	2	3	4	5	6	7	8	9	10	11	12	13
1	15.0	0.9	0.1	0.1	0.1	0.2	0.2	2.1	0.3	0.1	0.1	0.1	0.1
2	0	6.4	0	0	0	0	0	0	0	0	0	0	0
3	0	0	9.6	0	0	0	0	0	0	0	0	0	0
4 .....	.1	.1	.1	2.4	.1	.1	.1	.1	.1	0	.1	.1	.7
5	0	0	0	0	7.4	0	0	0	0	0	0	0	0
6	0	0	0	0	0	8.1	0	0	0	0	0	0	0
7 .....	.4	.3	.3	.6	.4	.3	14.6	.2	.2	.2	.2	.3	.3
8 .....	.3	.2	.1	.1	.2	.2	.2	5.4	.1	.2	.1	.2	.1
9	0	.1	0	0	0	0	0	0	8.8	.3	0	0	0
10 .....	.2	.2	.2	.1	.2	.3	.3	.2	.2	19.0	.1	.2	.1
11 .....	.1	0	0	0	0	.1	.1	.2	.1	.1	6.8	.2	0
12 .....	.2	.2	.1	.1	.2	.2	.2	.4	.2	.3	.1	12.3	.1
13 .....	.2	.2	.1	0	.1	.1	.2	.1	.1	.1	.1	.1	1.6
14 .....	.1	.1	.1	0	.1	.1	.2	.2	.2	.1	.2	.1	.1
15 .....	.2	.1	.1	0	.1	.6	.3	.1	0	0	.3	.1	0
16	0	0	0	0	0	.5	.4	.3	0	0	0	0	0
17	0	0	0	0	.1	.1	.1	0	0	0	0	0	0
18 .....	.1	.1	.2	.1	.2	.6	.6	.5	0	.1	.1	.1	.1
19	0	.1	.2	0	.2	.1	.1	0	0	0	0	0	0
20 .....	.1	.1	.1	.1	.1	.4	.3	.1	.1	.1	.1	.1	0
21	0	0	0	0	0	0	0	0	0	0	0	0	0
22	0	.9	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	.1	.1	0	0	0	0	.1	0
24	0	0	0	0	0	.1	.1	0	0	.1	0	.1	0
25 .....	.7	.6	.4	.2	.6	.8	.8	.8	.5	.5	.8	.9	.6
26 .....	.2	.2	.1	.1	.2	.3	.3	.2	.2	.2	.2	.3	.1
27 .....	.1	.1	.1	0	.2	.1	.1	.1	.1	.1	.1	.1	.1
28	1.0	.8	.7	.3	.7	1.2	1.2	1.4	.9	.9	.8	.9	.6
29	1.6	1.4	1.4	.7	1.6	3.3	3.6	1.3	1.1	1.5	1.2	1.7	.7
30 .....	.5	.4	.3	.2	.6	.5	.5	.4	.3	.4	.3	.4	.3
31 .....	.3	.4	.2	.1	.3	.3	.4	.2	.2	.2	.2	.3	.1
32 .....	.1	.1	.1	.2	.1	.1	.1	.1	.1	.1	.1	.1	.1
33 .....	.3	.2	.2	.1	.3	.3	.3	.2	.1	.2	.2	.3	.1
34 .....	.4	.2	.2	.1	.3	.4	.4	.3	.4	.4	.2	.3	.1
35	1.0	1.5	.9	.7	1.3	3.1	1.5	1.2	.9	1.1	.9	1.7	.9
36	1.0	.9	.8	.4	1.0	1.4	1.4	.9	.8	1.1	.8	1.4	.5
37 .....	.8	.7	.7	.3	.8	1.0	1.1	.6	.5	.7	.6	.8	.3
38 .....	.8	.7	.6	.3	.8	1.0	1.0	.6	.5	.7	.5	.8	.3
39 .....	.2	.2	.2	.1	.2	.3	.3	.2	.1	.2	.2	.2	.1
Total	26.0	18.5	18.4	7.5	18.5	26.5	31.1	18.5	17.2	29.1	15.3	24.3	8.3

NOTE.—Each entry represents the change in number of jobs that occurs in the row industry for each additional 1 million dollars of output delivered to final demand by the column industry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars. Appendix III identifies the row and column industries.

California

Table A-2.3.—39-Industry-by-39-Industry Multipliers for Employment—Continued

[Number of jobs]

	14	15	16	17	18	19	20	21	22	23	24	25	26
1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.1
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.1	.1	.1	.1	.1	.1	.1	0	.1	.1	.1	.2	0
5	0	0	.3	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.3	.3	.4	.4	.4	.3	.3	.2	.4	.3	.3	.6	.7
8 .....	.2	.2	.2	.1	.2	.2	.2	.1	.2	.2	.2	.2	.2
9	0	.1	0	0	0	0	0	0	0	0	.1	0	0
10 .....	.2	.2	.2	.2	.2	.2	.3	.3	.3	.2	.3	.3	.2
11 .....	.1	.1	.2	0	.1	.1	.1	0	0	.1	.2	0	0
12 .....	.2	.3	.3	.2	.3	.3	.3	.2	.3	.3	.5	.3	.2
13 .....	.2	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.3	.1
14	11.3	.2	.1	.1	.1	.2	.3	.2	.2	.3	.4	.1	.1
15 .....	.1	13.3	.1	.1	.1	.1	.1	.1	.1	.1	.3	.1	.1
16 .....	.1	.1	10.5	.1	.1	.1	.1	.1	.1	.1	.1	0	0
17	0	.1	0	7.7	.6	.2	.2	.2	.2	.1	.2	0	0
18 .....	.1	.4	.1	.2	10.2	.3	.4	.3	.3	.3	.2	.1	.1
19 .....	.1	.1	.1	.1	.1	9.3	.2	.2	.2	.1	.1	.1	0
20 .....	.1	.1	.1	.1	.1	.8	11.3	.2	.8	.7	.3	.1	.5
21	0	0	0	0	0	0	0	6.5	0	0	0	0	0
22	0	0	0	0	0	0	0	0	9.3	0	0	.1	0
23	0	0	0	0	0	0	.1	0	.2	10.0	0	0	0
24	0	0	0	0	0	0	.1	0	.1	0	10.1	.1	0
25 .....	.6	.7	1.3	.8	.6	.7	.7	.5	.7	.6	.7	15.0	.4
26 .....	.2	.2	.3	.2	.3	.3	.3	.2	.3	.3	.3	.3	8.3
27 .....	.1	.1	.2	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
28	1.1	1.3	.9	1.2	1.3	1.6	1.5	1.3	1.0	1.2	1.5	.8	.5
29	1.4	1.7	1.7	1.4	1.6	1.9	2.1	1.2	2.0	1.9	1.6	2.3	1.6
30 .....	.3	.5	.4	.3	.4	.5	.5	.3	.5	.5	.5	.6	.5
31 .....	.2	.3	.3	.2	.3	.3	.3	.2	.3	.3	.3	.4	.2
32 .....	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.2	.1
33 .....	.2	.2	.2	.2	.2	.3	.3	.2	.4	.3	.2	.3	.9
34 .....	.3	.3	.3	.3	.3	.4	.4	.2	.3	.3	.3	.4	.4
35	1.1	1.4	1.3	1.2	1.2	1.5	1.6	.9	1.6	1.7	1.6	1.7	1.2
36	1.0	1.2	1.1	.9	1.1	1.4	1.4	.8	1.3	1.3	1.4	1.6	1.1
37 .....	.7	.8	.8	.7	.8	.9	1.0	.6	1.0	.9	.8	1.1	.8
38 .....	.6	.8	.7	.6	.7	.8	.9	.7	.8	.9	.8	1.1	.7
39 .....	.2	.2	.2	.2	.2	.3	.3	.2	.3	.3	.2	.3	.2
Total	21.3	25.8	23.0	18.3	22.2	23.7	25.9	16.5	23.8	23.9	23.8	28.9	19.3

NOTE.—Each entry represents the change in number of jobs that occurs in the row industry for each additional 1 million dollars of output delivered to final demand by the column industry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars. Appendix III identifies the row and column industries.

California

Table A-2.3.—39-Industry-by-39-Industry Multipliers for Employment—Continued

[Number of jobs]

	27	28	29	30	31	32	33	34	35	36	37	38	39
1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.6	0.2	0.2	0.3
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4 .....	.6	.1	.1	.1	.1	0	.1	.1	.1	.1	.1	.1	.1
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7 .....	.6	.3	.5	.5	.4	.9	.5	.4	.4	.3	.5	.9	.4
8 .....	.1	.2	.3	.3	.3	0	.2	.2	.3	1.0	.3	.2	.4
9	0	0	0	0	0	0	0	0	0	0	0	0	0
10 .....	.1	.3	.3	.3	.3	.1	.3	.4	.3	.2	.4	.3	.5
11	0	.1	.1	.1	.1	0	0	.1	.1	.1	.1	.1	.1
12 .....	.1	.3	.5	.5	.5	.1	.5	.3	.4	.3	.3	.5	.3
13 .....	.1	.1	.1	.1	.1	0	.1	.1	.1	.1	.1	.1	.1
14	0	.1	.1	.1	.1	0	.1	.1	.1	.1	.2	.1	.1
15	0	.1	.1	.1	.1	0	.1	.1	.1	.1	.1	.1	.1
16	0	0	0	0	0	0	0	.1	0	.1	.1	.1	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0
18 .....	.1	.1	.1	.1	.1	0	.1	.1	.1	.1	.1	.2	.1
19	0	0	0	.1	.1	0	0	.1	.1	.1	0	.1	0
20 .....	.1	.1	.1	.1	.1	0	.1	.4	.2	.1	.1	.2	.1
21	0	0	0	0	0	0	0	0	0	0	0	.1	0
22	0	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	.1	0	0	.1	0	0
24	0	0	.1	.1	.1	0	.1	.1	.1	0	.1	.1	.1
25 .....	.4	.6	.7	1.1	.9	.2	.6	.6	.7	.7	.7	.7	.7
26 .....	.1	.3	.4	.5	.6	.1	.4	.3	.4	.3	.3	.3	.3
27	2.7	.1	.1	.1	.1	0	.1	.1	.1	.1	.1	.2	.1
28 .....	.3	13.0	.7	.7	.8	.2	.6	.9	.8	1.3	.9	.9	.9
29 .....	.8	2.0	28.9	2.6	2.8	.5	1.8	2.3	2.6	1.9	2.7	2.6	3.9
30 .....	.3	.5	.6	15.0	1.4	.2	.5	.5	.6	.6	.5	.5	.6
31 .....	.2	.3	.4	.5	18.8	.3	.3	.4	.4	.3	.4	.4	.6
32 .....	.1	.1	.2	.2	.2	1.1	.2	.2	.2	.1	.2	.2	.2
33 .....	.1	.3	.3	.4	.5	.1	14.6	.3	.4	.3	.3	.3	.4
34 .....	.2	.4	.6	.5	.5	.1	.4	30.9	.5	.4	.5	.5	.6
35 .....	.7	1.9	2.4	3.8	2.4	.6	2.4	1.9	23.0	1.9	1.7	1.6	1.3
36 .....	.5	1.6	2.1	2.2	2.7	.5	1.4	1.5	1.8	30.2	1.7	1.4	2.1
37 .....	.4	1.0	1.2	1.2	1.4	.2	.9	1.1	1.3	.9	20.4	1.0	1.9
38 .....	.3	1.0	1.2	1.4	1.2	.2	.9	1.1	1.1	.8	1.1	20.0	1.4
39 .....	.1	.3	.3	.3	.4	.1	.2	.3	.4	.3	.4	.3	.5
Total	9.2	25.5	42.9	33.2	37.4	5.8	27.8	45.4	36.7	43.4	34.9	34.2	18.2

NOTE.—Each entry represents the change in number of jobs that occurs in the row industry for each additional 1 million dollars of output delivered to final demand by the column industry. Be-

cause the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars. Appendix III identifies the row and column industries.

California

Table A-2.4.—Total Final-Demand Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output ¹ (dollars)	Earnings ² (dollars)	Employment ³ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.1651	0.5702	26.0
Forestry and fishery products	2.1434	.4871	18.5
Mining:			
Coal mining	1.7751	.4862	18.4
Crude petroleum and natural gas	1.5933	.2296	7.5
Miscellaneous mining	2.0508	.5646	18.5
Construction:			
New construction	2.4756	.7531	26.5
Maintenance and repair construction	2.4028	.8335	31.1
Manufacturing:			
Food and kindred products and tobacco	2.2539	.4670	18.5
Textile mill products	1.7585	.3980	17.2
Apparel	1.9798	.5480	29.1
Paper and allied products	1.8556	.4251	15.3
Printing and publishing	2.0732	.6162	24.3
Chemicals and petroleum refining	1.9657	.2453	8.3
Rubber and leather products	1.9497	.5079	21.3
Lumber and wood products and furniture	2.2309	.6149	25.8
Stone, clay, and glass products	2.2761	.6050	23.0
Primary metal industries	2.0247	.5128	18.3
Fabricated metal products	2.1166	.5904	22.2
Machinery, except electrical	2.3437	.7001	23.7
Electric and electronic equipment	2.3937	.7695	25.9
Motor vehicles and equipment	1.8880	.4267	16.5
Transportation equipment, except motor vehicles	2.3522	.7307	23.8
Instruments and related products	2.2013	.6787	23.9
Miscellaneous manufacturing industries	2.2007	.5758	23.8
Transportation and public utilities: *			
Transportation	2.4307	.7846	28.9
Communication	1.9262	.5728	19.3
Electric, gas, water, and sanitary services	2.2757	.2790	9.2
Wholesale and retail trade:			
Wholesale trade	2.0632	.7276	25.5
Retail trade	2.3373	.8743	42.9
Finance, insurance, and real estate:			
Finance	2.5757	.9230	33.2
Insurance	2.8692	1.0354	37.4
Real estate	1.4301	.1490	5.8
Services:			
Hotels and lodging places and amusements	2.3442	.6555	27.8
Personal services	2.2431	.8323	45.4
Business services	2.3268	.9448	36.7
Eating and drinking places	2.3012	.6722	43.4
Health services	2.3697	.9937	34.9
Miscellaneous services	2.3142	.7189	34.2
Households	1.4345	.4200	18.2

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 1989 data, the output delivered to final demand should be in 1989 dollars.

California

Table A-2.5.—Total Direct-Effect Multipliers, by Industry Aggregation, for Earnings and Employment

	Earnings ¹ (dollars)	Employment ² (number of jobs)
Agriculture, forestry, and fisheries:		
Agricultural products and agricultural, forestry, and fishery services	2.1827	1.9745
Forestry and fishery products	2.7860	2.8885
Mining:		
Coal mining	1.8078	1.9082
Crude petroleum and natural gas	2.3345	3.2647
Miscellaneous mining	1.9823	2.5156
Construction:		
New construction	2.5110	3.2799
Maintenance and repair construction	1.9616	2.1781
Manufacturing:		
Food and kindred products and tobacco	3.7452	3.8996
Textile mill products	2.1441	2.0298
Apparel	2.0760	1.7557
Paper and allied products	2.1695	2.4467
Printing and publishing	2.0538	2.1226
Chemicals and petroleum refining	4.6266	5.8464
Rubber and leather products	2.0401	1.9441
Lumber and wood products and furniture	2.3578	2.2547
Stone, clay, and glass products	2.3481	2.4216
Primary metal industries	2.3028	2.5810
Fabricated metal products	2.2017	2.3246
Machinery, except electrical	2.3893	2.9065
Electric and electronic equipment	2.2247	2.7070
Motor vehicles and equipment	2.5791	2.6290
Transportation equipment, except motor vehicles	2.2912	2.9224
Instruments and related products	2.1340	2.4720
Miscellaneous manufacturing industries	2.5602	2.4282
Transportation and public utilities: *		
Transportation	2.0426	2.2543
Communication	1.9370	2.4157
Electric, gas, water, and sanitary services	3.9325	5.1316
Wholesale and retail trade:		
Wholesale trade	1.7684	2.0908
Retail trade	1.7958	1.6199
Finance, insurance, and real estate:		
Finance	2.2136	2.6032
Insurance	2.4337	2.7944
Real estate	5.4499	5.7892
Services:		
Hotels and lodging places and amusements	2.4677	2.3947
Personal services	1.7956	1.5119
Business services	1.7711	1.8705
Eating and drinking places	2.1484	1.5044
Health services	1.6433	1.8638
Miscellaneous services	2.0531	1.7914
Households		

* Includes Federal Government enterprises.

1. Each entry in column 1 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.

2. Each entry in column 2 represents the total change in number of jobs in all row industries for each additional job in the industry corresponding to the entry.



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